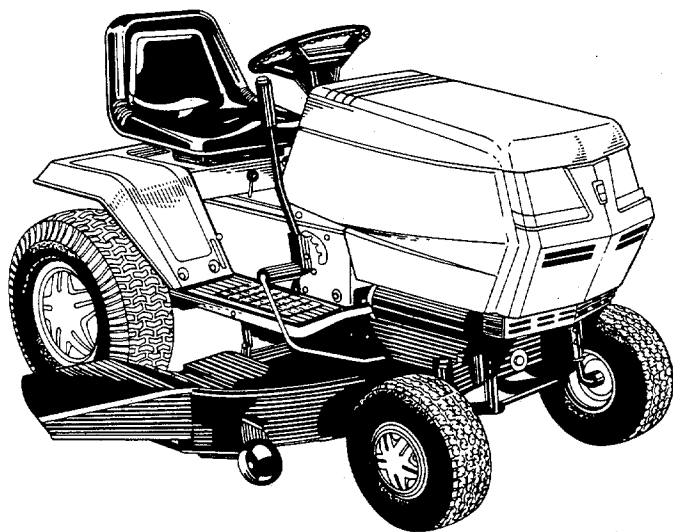


\$1.00

OWNER'S GUIDE

SENTAR

**18 H.P.
HYDROSTATIC
LAWN TRACTOR**



**Model Number
139-784-401**

*No PLOW ON THIS UNIT
TILLERS ARE OK*

Thank you for purchasing an American-built product.

Important:
Read Safety Rules and Instructions Carefully

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Slope Gauge	3	Lubrication	15
Contents of Hardware Pack	4	Maintenance	16
Rules for Safe Operation			
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L

For two years from the repair or replace, at its or parts found to be de ment of any power equ tation charges for any purchaser unless such

This warranty will not a use, accident, neglect, and maintained in acc the engine, motor, bat plicable manufacturer'

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Warranty service is avi do not know the dealer ment of SENTAR/MTD

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WARNING: This unit is equipper proved forest-covered, brush-co a spark arrester meeting applica in effective working order by th

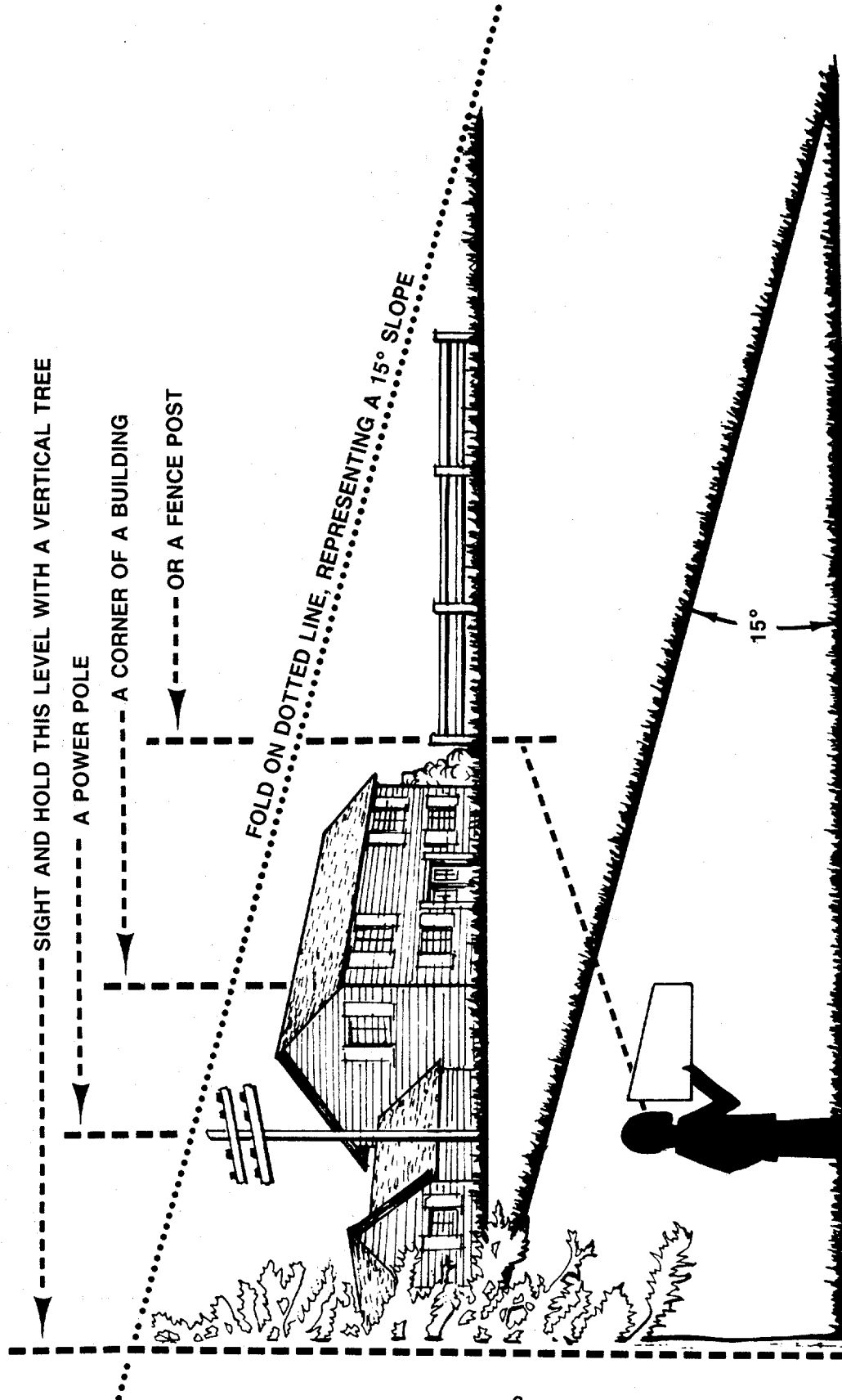
In the State of California the ab Other states may have similar lav through your nearest engine authorized service dealer.

spark arrester for the muffler is available

SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2½ feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

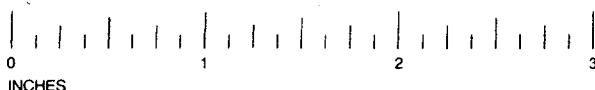
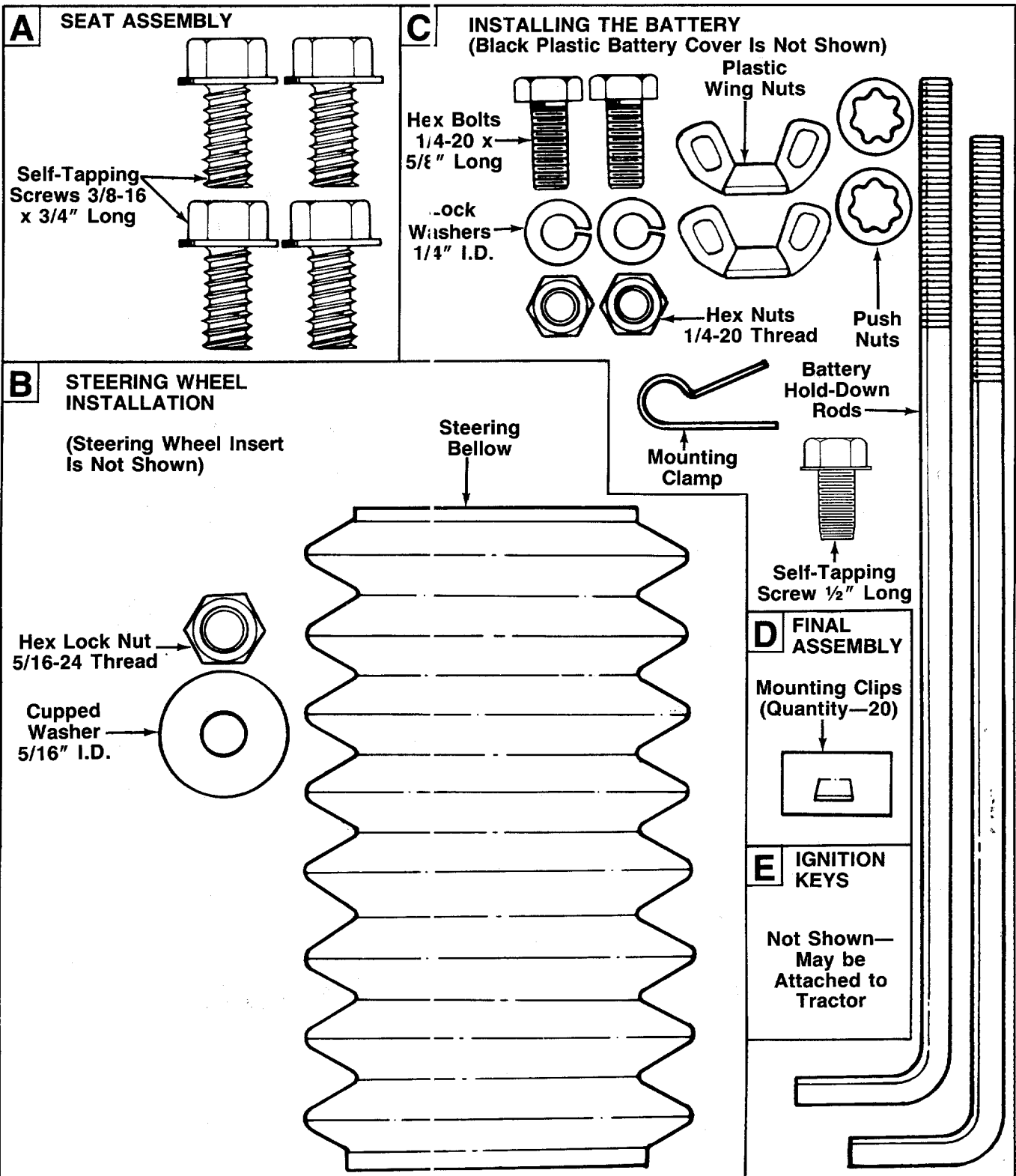
Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

CONTENTS OF HARDWARE PACK




Remove this sheet from your owner's manual and lay the hardware on the illustration for identification purposes. Refer to the separate deck manual for any information concerning the deck. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.

(Hardware pack may contain extra items which are not used on your unit.)



IMPORTANT

RULES FOR SAFE OPERATION

 THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—  **HEED ITS WARNING.** 



DANGER

Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

1. READ THIS OWNER'S MANUAL carefully in its entirety before attempting to assemble or operate this unit. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.
3. Know the controls and how to stop the machine quickly.
4. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
5. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts to avoid entanglement in the moving parts. Never operate a unit in bare feet, sandals, or sneakers.
6. To prevent injury, do not carry passengers or give rides. Keep children, pets and bystanders out of the area while mowing. Only the operator should ride on the unit and only ride in the seat.
7. Check overhead clearance carefully before driving under power lines, guy wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
8. To maintain control of the unit and reduce the possibility of upset or collision, operate the tractor smoothly. Avoid erratic operation and excessive speed.
9. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander.
10. Stop the blade(s) when crossing gravel drives, walks or roads.
11. Disengage all attachment clutches and shift into neutral before attempting to start engine.
12. Disengage power to attachment(s) and stop engine before leaving operating position.
13. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade(s) can cause injury.
14. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
15. Before attempting to unclog the mower or discharge chute, stop the engine. The mower blade(s) may continue to rotate for a few seconds after the engine is shut off. Therefore, be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
16. Disengage power to attachment(s) when transporting or not in use.
17. Take all possible precautions when leaving vehicle unattended such as disengaging power take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
18. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.
19. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face. Use extreme caution if it is necessary to drive the tractor up an incline or back the tractor down an incline because the front of the tractor could lift and rapidly flip over backward which could cause serious injury.
20. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Always keep the tractor in gear when going down steep hills to take advantage of engine braking action.
21. Stay alert for holes in terrain and other hidden hazards which may cause the unit to tip over.
22. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use counterweight(s) or wheel weights when suggested in owner's manual.
23. Watch out for traffic when crossing or near roadways.
24. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
25. Handle gasoline with care. It is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Open doors if engine is run in garage. Exhaust fumes are dangerous. Do not run engine indoors.

Rules for Safe Operation (continued)

26. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in operator's manual.
27. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
28. Never store the machine with fuel in the fuel tank inside a building where ignition sources are present, such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
29. To reduce fire hazard, keep engine free of grass, leaves or excessive grease.
30. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
31. Do not change the engine governor settings or overspeed the engine.
32. When using the vehicle with mower, proceed as follows:
 - (1) Mow only in daylight or in good artificial light.
 - (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
 - (3) Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
 - (4) Check blade mounting bolts for proper tightness at frequent intervals.
33. Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
34. Look behind to make sure the area is clear before placing the transmission in reverse and continue looking behind while backing up. Disengage blades before shifting into reverse and backing up.
35. This unit should not be driven up a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load properly.

➡ IMPORTANT: This unit is shipped **WITHOUT GASOLINE or OIL**; however, a small amount of oil may be present from the factory. Do not overfill. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

➡ NOTE: Reference to right or left hand side of the unit is observed from the driver's seat, facing forward. Refer to the separate deck manual for all information concerning the deck.

ASSEMBLY

UNPACKING

1. Remove the carton from the tractor as follows. Cut and remove the bands around the carton. Open the top flaps and remove all carton inserts. Lift the carton off the tractor. Remove the deck from beneath the tractor. Using the relief valve, roll the tractor off the skid. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Remove page four from this manual and lay the contents of the hardware pack on the illustration for identification.

BATTERY INFORMATION



- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it. *

- B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean, cold water. If there is any further discomfort, seek prompt medical attention.
- C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.
- D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.
- E. NEVER connect or disconnect charger clips to battery while charger is turned on as it can cause sparks.
- F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.
- G. As a further precaution, only charge the battery in a well-ventilated area.

***Always shield eyes, protect skin and clothing when working near batteries.**

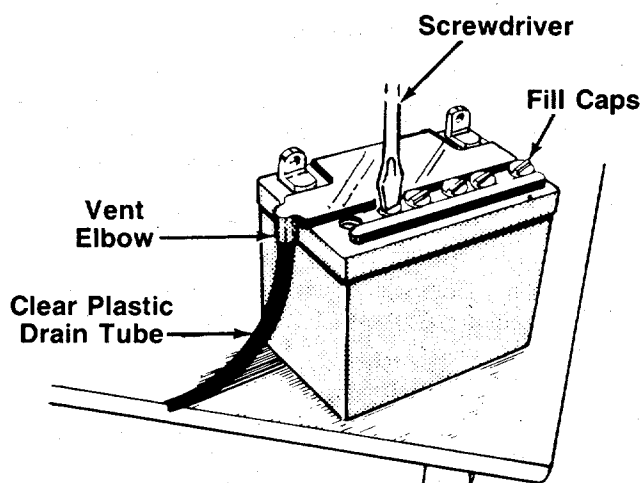


FIGURE 1.

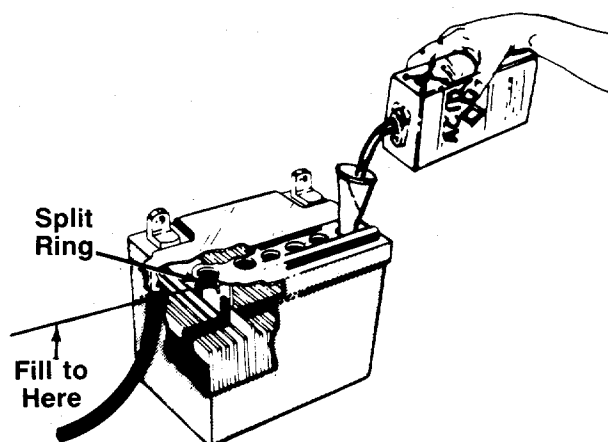


FIGURE 2.



Battery contains sulfuric acid. Refer to warning on page 6. Antidote: EXTERNAL—Flush with water. INTERNAL—Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Seek prompt medical attention. EYES: Flush with cool water for at least 15 minutes, then seek immediate medical attention.

Since batteries produce explosive gases, keep all lighted materials (cigarettes, lighters, matches, etc.) away. Be sure to charge battery only in well-ventilated areas.

**KEEP BATTERIES
OUT OF THE REACH OF CHILDREN!**

ACTIVATING THE BATTERY

Do not activate battery (fill with battery acid) until battery is actually placed in service. Be certain to read previous warnings before activating the battery.

1. Open the battery pack. Be careful not to puncture the box. It contains the battery with a long plastic tube attached, battery fluid (acid) in a cardboard container and one cone.
2. Place the battery on a table or workbench. Make certain the long plastic drain tube is in place on the vent elbow.
3. Remove the six fill caps from the top of the battery with a screwdriver. Be careful not to damage the fill caps. See figure 1.
4. Cut off the tip of the cone for use as a funnel.
5. Place the battery fluid container upright on the table or workbench. Carefully remove the flap on the box, and pull out the plastic tube. Cut off the tip of the plastic tube. Do not squeeze the container when cutting the tip.
6. Fill each battery cell slowly and carefully to the split ring at the bottom of the well. See figure 2. Use caution as the acid level will rise rapidly after the bottom of the cell is filled. **DO NOT OVERFILL.**
7. Allow battery to stand for 30 minutes with the fill caps removed, while the plates absorb acid.
8. If acid level has fallen after the 30 minute standing period, refill each cell with battery acid to the split ring. Replace the fill caps.
9. Before discarding the empty container, neutralize any residue with baking soda and rinse container with water. Puncture container several times before discarding.
10. Charge the battery after the 30 minute standing period. **SLOW CHARGE THE BATTERY (DO NOT FAST CHARGE)** at a maximum bench rate of 5 amperes until the specific gravity reading is 1.265 (approximately 30 minutes).

NOTE

After battery has been in service, add only distilled water to replace normal loss. Do not add acid.

NOTE

This engine is equipped with an alternator. The current for the battery charger alternator is unregulated. During normal operation, it is only necessary to charge the battery:

1. When it is activated for the first time.
2. Before winter storage.
3. Before using the tractor after winter storage.

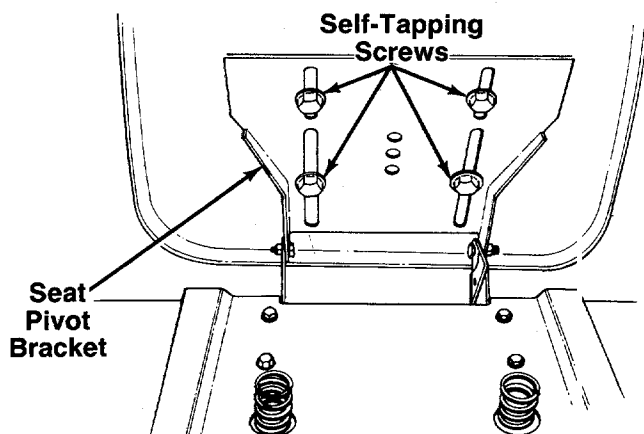


FIGURE 3.

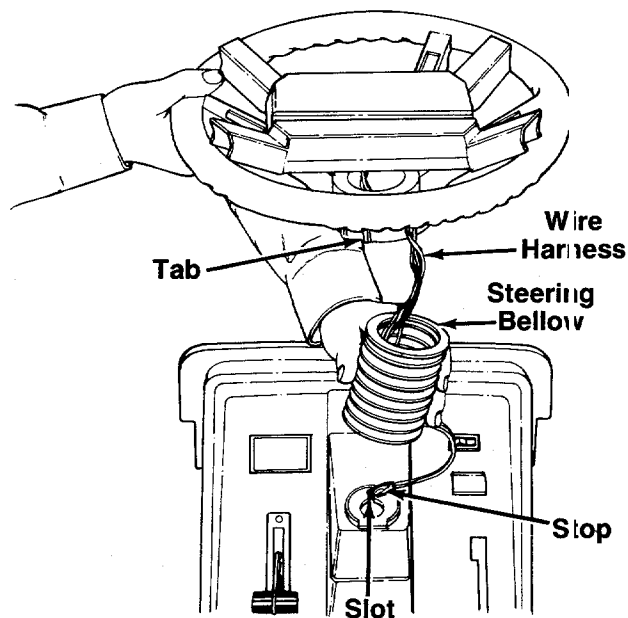


FIGURE 4.

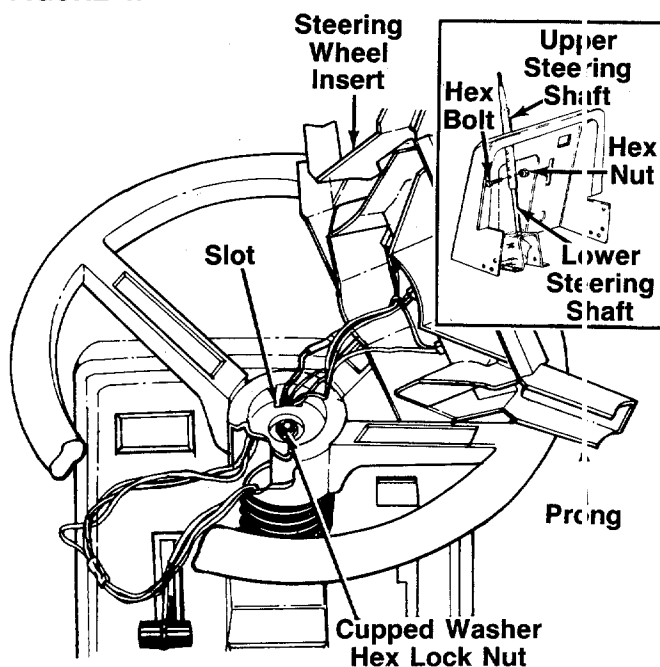


FIGURE 5.

SEAT ASSEMBLY (Hardware A)

Place the seat in position against the seat pivot bracket, lining up the slotted holes in the pivot bracket with the holes in the seat. Select desired position for the seat, and secure with hex self-tapping screws. See figure 3.

STEERING WHEEL INSTALLATION (Hardware B)

Your unit is equipped with indicator lights, located in the steering wheel. The steering wheel must be assembled as follows for proper operation of the indicator lights.

1. Open the hood of the tractor.
2. Place the larger end of the steering bellow over the wire harness extending through the steering wheel (bellow must fit over the four tabs on the steering wheel). See figure 4.
3. Insert the ends of the wire harness down through the hole in the dash. Then slide the wires through the slot into the smaller hole in the dash to the stop (tape) on the harness as shown in figure 4. Only about 6" of wire will extend beneath the dash.
4. Plug the three connectors on the wire harness into the corresponding connectors on the tractor.
5. Slide the upper steering column through the hole in the dash, over the lower steering column. Insert hex bolt through upper and lower column to secure temporarily in any one of the four hole locations.
6. Position the front wheels of the tractor so they are pointing straight forward.
7. Slide the steering bellow over the steering column. Hold the wires out of the way as shown. See figure 5.
8. Place the steering wheel over the steering column, positioning steering wheel as shown (slot for the wires is toward the front of the tractor).
9. Place the washer with the cupped side down over the steering column. Secure with 5/16" hex lock nut.
10. Attach the steering wheel insert to the steering wheel as follows.
 - a. Position the steering wheel insert so the lights are toward the bottom.
 - b. Place the two prongs on one side of the insert over two of the spokes on the steering wheel. Press into place.
 - c. Take the slack out of the wires by pulling through the steering wheel.
 - d. Press the prongs on the other side of the insert over the other two spokes on the steering wheel.
11. Remove the hex bolt which is holding the upper and lower steering columns. Turn steering wheel three full revolutions clockwise.

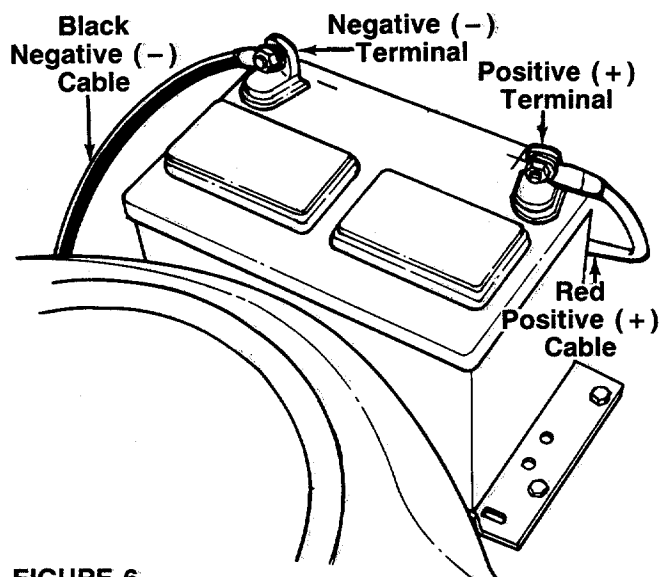


FIGURE 6.

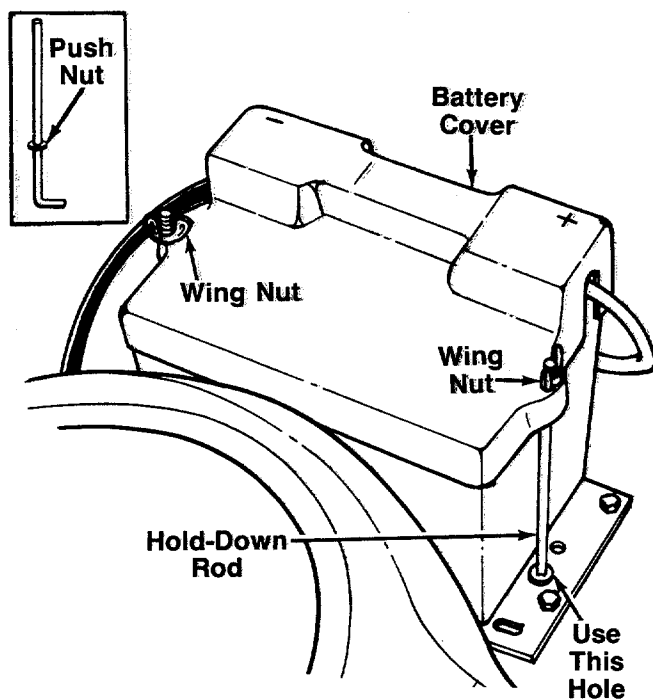


FIGURE 7.

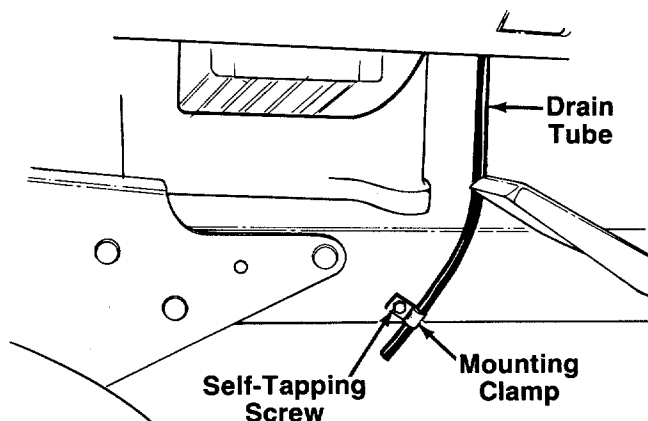


FIGURE 8.

12. The four holes in the upper steering column provide four height positions for the steering wheel. See figure 5, inset. Select desired position, and secure with hex bolt and hex lock nut. Tighten securely.
13. If any excess wire is beneath the steering wheel, insert it inside the steering bellow. Pull bellow up against the bottom of the steering wheel.

INSTALLING THE BATTERY (Hardware C)

NOTE

The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (-).

1. Place the battery on the battery plate with the terminals towards the rear of the tractor.
2. Attach the positive cable (heavy red wire) to the positive battery terminal (+) with hex bolt 5/8" long, 1/4" lock washer and hex nut. See figure 6.
3. Attach the negative cable (heavy black wire) to the negative battery terminal (-) with the other hex bolt 5/8" long, 1/4" lock washer and hex nut.
4. Attach one push nut to each battery hold-down rod. See figure 7, inset.
5. Hook one hold-down rod into the hole in battery plate beside the battery as shown in figure 7. Slide the push nut down the rod, against the battery plate. Place the black plastic battery cover in position over the hold-down rod. Secure with wing nut. Attach other hold-down rod to the other side of battery cover in the same manner.
6. Route the battery drain tube over to the left side of the tractor. Slip the end of the drain tube into the mounting clamp provided in hardware pack. Secure the mounting clamp to the tractor frame using the self-tapping screw as shown in figure 8.

NOTE

The vented battery allows any gases or liquid from the battery to be drained onto the ground.

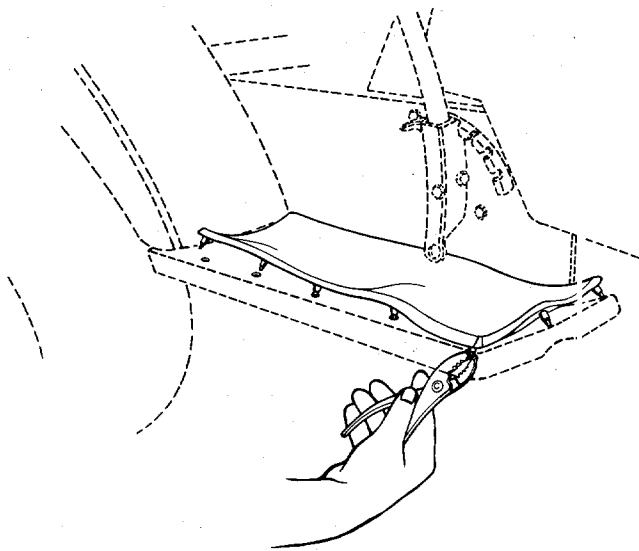


FIGURE 9.

FINAL ASSEMBLY (Hardware D)

1. Position one foot pad on top of the running board on the tractor, lining up the studs on the bottom of pad with the holes in the running board. Pull the studs through the holes in the running board using a pair of pliers. Repeat on other side of tractor. See figure 9.

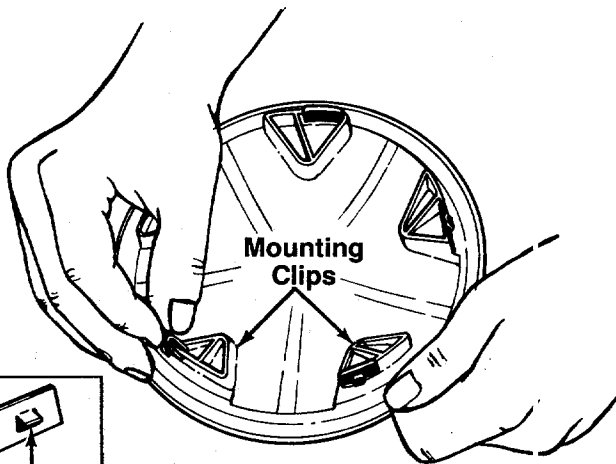


FIGURE 10.

2. Attach the four hub caps as follows.

- a. Slide five mounting clips on each hub cap as shown in figure 10, with the tabs on the mounting clips facing outward.
- b. Line up hub caps with wheel rims. Push hub caps on by hand.



TIRE PRESSURE

The tires on your unit may be over-inflated for shipping purposes. Reduce the tire pressure before operating the unit. Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure).



WARNING

Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

CONTROLS

IGNITION SWITCH

The ignition switch is located on the dashboard. Turn the key to the START position to start the engine. When the engine is running, leave the key in the ON position. To stop the engine, turn the key to the OFF position. See figure 11.



WARNING

Remove the key from the tractor when the tractor is not in use to prevent accidental starting.

THROTTLE CONTROL

The throttle control is located on the left side of the dashboard and is used to regulate the engine speed. See figure 11. The engine should be operated from $\frac{3}{4}$ to full throttle (FAST) when operating any equipment that uses the tractor engine as a source of power such as the mowing deck, snow thrower or rotary tiller.

CHOKE CONTROL

The choke control is located on the right side of the dashboard and is operated manually. Details for the choke operation are covered in the separate engine manual packed with your unit. See figure 11.

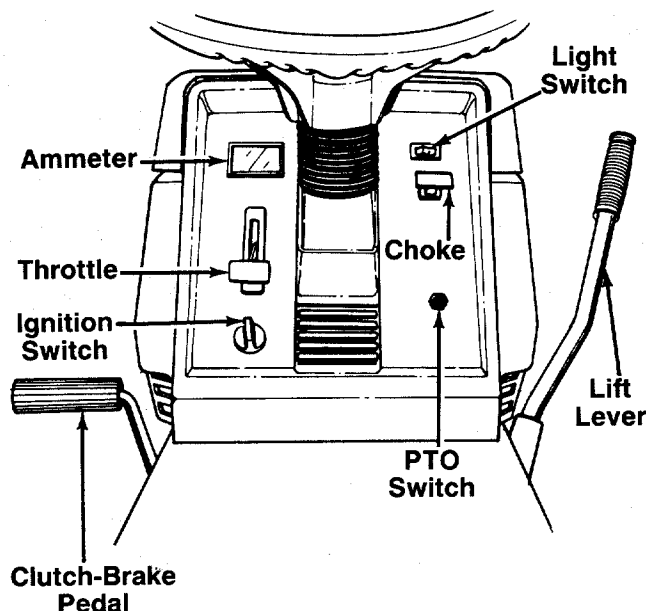


FIGURE 11.

LIGHT SWITCH

The head lamps are operated by pushing the light switch located on the dashboard. The head lamps will only operate when the engine is running. See figure 11.

AMMETER

The ammeter registers the rate of battery charge or discharge. The ammeter will register on the discharging side with starting the engine. It should register on the opposite side (charging) when the engine is running in the fast position until the battery is completely charged. With a fully charged battery or with the engine idling, the ammeter will not show a charge. See figure 11.

HYDROSTATIC CONTROL LEVER

The hydrostatic control lever is located on top of the fender on the left side of the tractor. This single control lever, connected to the hydrostatic transmission, controls both the speed and direction of the tractor. Infinite speed control is achieved by moving the control lever forward or backward. The farther forward or backward you move the control lever, the faster you will travel. Pulling the control lever into neutral (N) area will stop the tractor. To increase rear wheel torque (pulling power), move the control lever towards neutral (N) position. The lawn tractor responds similar to shifting to a lower gear with a gear type transmission. See figure 12.

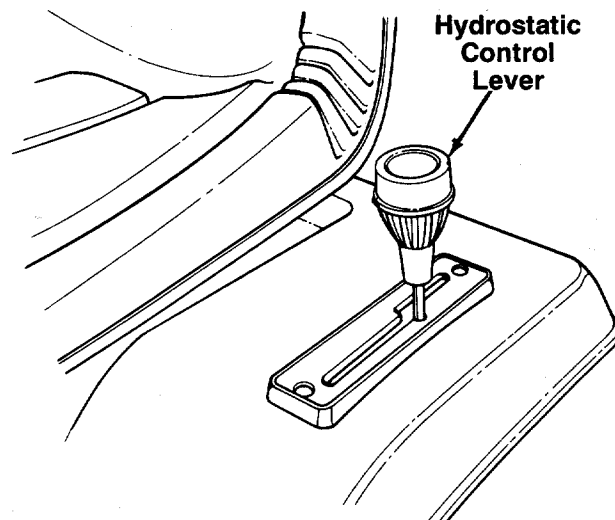


FIGURE 12.

CLUTCH-BRAKE PEDAL

The clutch-brake pedal is located on the left side of the tractor. See figure 11. Depressing the pedal disengages the engine from the hydrostatic transmission and applies the brake. You can release the clutch pedal and resume the same speed without moving the hydrostatic control lever.



The clutch-brake pedal must be depressed to start the engine.

PARKING BRAKE

To set the parking brake, depress the clutch-brake pedal and pull up the parking brake knob. It will stay in the raised position. To release the parking brake, depress and release the clutch-brake pedal. See figure 13.

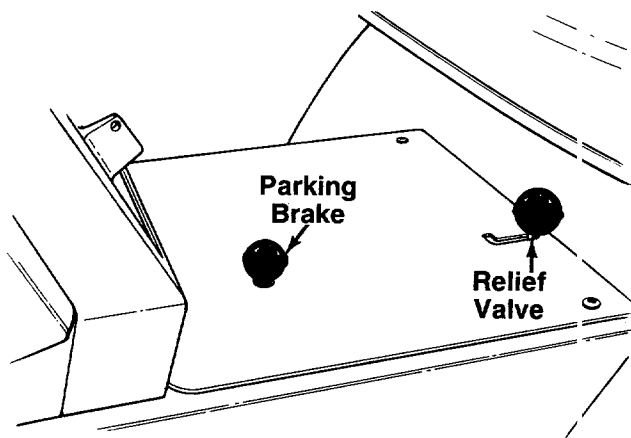


FIGURE 13.

RELIEF VALVE

A hydrostatic relief valve is provided so the unit can be moved without the engine running. The lever which operates the relief valve is located on the console. See figure 13.

To operate the relief valve, place the hydrostatic control lever in neutral, release the parking brake, push the lever forward and to the right to lock. Be certain to release the lever by pushing it to the left before operating the engine.

LIFT LEVER

The five position lift lever is used to change the operating position of the attachments. To operate, pull the lever towards you. To release, move the lever to the right and then forward. See figure 11.

POWER TAKE-OFF (PTO) SWITCH

The PTO switch is located on the right side of the dashboard. See figure 14. The PTO switch **must** be in the OFF position (down) when starting the engine, when shifting into reverse and if the operator leaves the seat.

To engage the PTO switch, pull knob out and lift up to ON position, then release. The knob will return to RUN position. See figure 14.

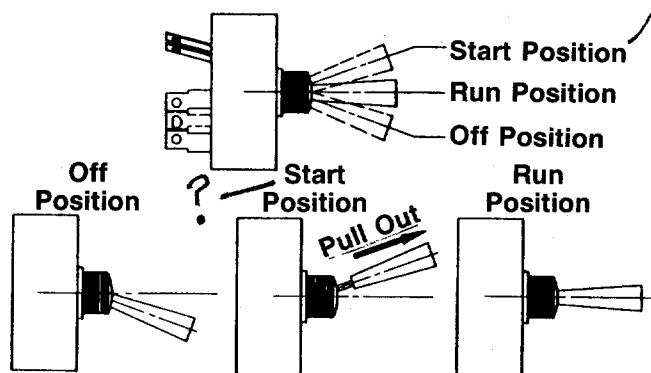


FIGURE 14.
INDICATOR LIGHTS

The unit is equipped with three indicator lights, located in the steering wheel. If a light illuminates when attempting to start the unit, proceed as follows:

CLUTCH—Depress the clutch pedal.

PTO—Disengage the PTO lever.

REVERSE—Designates unit is in reverse. Use **Caution**.

OPERATION

CAUTION

- READ OPERATOR'S MANUAL(S) • NEVER CARRY CHILDREN
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS
- KEEP SAFETY DEVICES (GUARDS, SHIELDS AND SWITCHES) IN PLACE AND WORKING
- REMOVE OBJECTS THAT COULD BE THROWN BY BLADE(S)
- DO NOT OPERATE THE UNIT WHEN CHILDREN AND OTHERS ARE AROUND
- ALWAYS LOOK BEHIND THE UNIT BEFORE BACKING UP
- DO NOT OPERATE THE UNIT WHERE IT COULD SLIP OR TIP
- IF THE UNIT STOPS GOING UPHILL, STOP BLADE(S) AND BACK SLOWLY DOWNHILL
- BE SURE BLADE(S) AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE(S)
- BEFORE LEAVING OPERATOR'S POSITION, SHUT ENGINE OFF AND REMOVE KEY

GAS AND OIL FILL-UP *CAPACITY 48 QTS - 3 PINTS*

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your tractor. Read instructions carefully.

The gasoline tank is located under the seat. The filler neck is behind the seat. Do not overfill.

NOTE

SPEC CALLS FOR 36 QTS OF OIL.
Your tractor is shipped without oil; however, a small amount of oil may be present from the factory. Do not overfill.



WARNING

Never fill fuel tank indoors, with engine running or while engine is hot.

OPERATING THE TRACTOR

➡ NOTE

This unit is equipped with a **safety interlock system** for your protection. The purpose of the safety interlock system is to prevent the engine from cranking or starting unless the clutch-brake pedal is depressed and the PTO switch is in the OFF position. In addition, the PTO switch must be in the OFF position when the unit is put into reverse or the engine will shut off. If the operator leaves the seat with the PTO ON, the engine will shut off.



WARNING

Do not operate the tractor if the interlock system is malfunctioning because it is a safety device, designed for protection.

1. Place the PTO switch in the OFF (down) position.
2. Depress the clutch-brake pedal and set the parking brake.
3. Place the hydrostatic control lever in the NEUTRAL (N) position.
4. Set the throttle control in the FAST position.
5. Pull out the choke control. (A warm engine requires less choking.)
6. Turn the ignition key to the right to the START position. After the engine starts, release the key. It will return to the ON position.
7. Slowly push in the choke as the engine warms up.
8. Depress the clutch-brake pedal so the parking brake is released and then release the clutch-brake pedal.
9. Move the hydrostatic control lever forward. The farther forward you move the hydrostatic control lever, the faster you will travel.
10. To stop the tractor, pull the hydrostatic control lever into NEUTRAL (N) or depress the clutch-brake pedal.
11. To shut off the engine, turn the ignition key to the left to the OFF position. Remove the key to prevent accidental starting while equipment is unattended.

NOTE !

12. Break in the electric PTO clutch by first attaching the mowing deck, snow thrower, etc. to the tractor, then engaging and disengaging the PTO 10 to 15 times without any load (not cutting grass, not blowing snow, etc.). Following this procedure will

break in the components of the clutch assembly, and will increase the life of the clutch.

Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage lawn tractor or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.

When stopping the unit to empty a grass bag, etc., move the throttle to idle position to avoid "browning" the grass (caused by air from the engine hitting the same spot for a period of time). This "browning" is a temporary condition, which may not appear for 1 to 2 days after mowing.

➡ IMPORTANT

If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

➡ NOTE

If any problems are encountered, refer to the Trouble Shooting Charts on pages 20 and 21.

GRASS COLLECTOR Model 190-083 is available as optional equipment for the lawn tractor shown in this manual.



WARNING

The mower should not be operated without the entire grass catcher or chute deflector in place.

➡ NOTE

Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag.

ADJUSTMENTS



WARNING

Disconnect the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

SEAT ADJUSTMENT

To adjust the position of the seat, loosen the four self-tapping screws on the bottom of the seat. See figure 3. Slide the seat forward or backward as desired. Retighten the self-tapping screws.

NEUTRAL ADJUSTMENT

To check the neutral adjustment of the hydrostatic control lever, proceed as follows.

Place the hydrostatic control lever in the forward position, then depress the clutch-brake pedal all the way. The lever should move to the neutral position. Place the hydrostatic control lever in the reverse position, then depress the clutch-brake pedal all the way. The lever should again move to neutral.

To adjust: (See figure 15)

1. Loosen the lock nut on the neutral return rod. Disconnect the ferrule on the neutral return rod from the speed selector handle bracket.
2. With the clutch-brake pedal depressed, place the hydrostatic control lever in neutral.
3. Adjust the ferrule on the rod until it lines up with the hole in the speed selector handle bracket.
4. Reassemble the ferrule to the speed selector handle bracket. Tighten the lock nut against the ferrule.
5. Check the adjustment of the hydrostatic transmission control as instructed in the next section.

HYDROSTATIC CONTROL ADJUSTMENT

The hydrostatic transmission control is in correct adjustment when the tractor does not move with the engine running, the clutch engaged and the hydrostatic control lever in the neutral position.

If adjustment is necessary, follow these steps:

1. Raise both rear wheels off the ground by placing blocks under the rear frame.
2. Loosen the lock nut (left hand thread) on the end of the control rod. See figure 15.

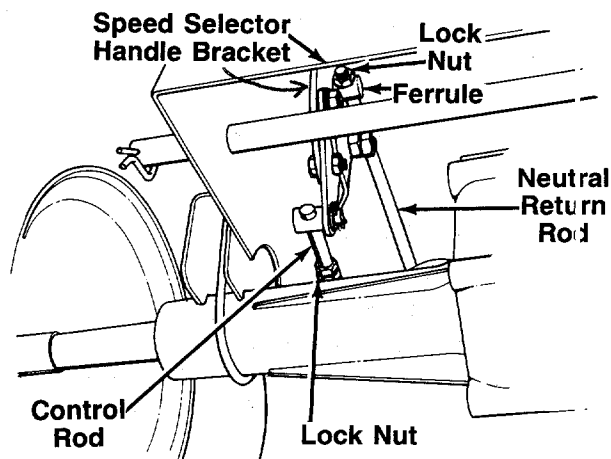


FIGURE 15.

3. Place the hydrostatic control lever in the neutral position.
4. Start the tractor.
5. Release the clutch-brake pedal.

NOTE

DO NOT set the parking brake or the relief valve.



Be careful of the cooling fan on the hydrostatic transmission.

6. Turn the control rod back and forth until the rear wheels do not rotate.
7. Shut off the engine.
8. Tighten the lock nut on the control rod.
9. Remove the blocks under the tractor frame and test the tractor operation.

LEVELING THE DECK

1. Check tire pressure in all four tires. Recommended pressure is approximately 12 p.s.i.
2. Make certain all deck wheels are mounted in same relative location.
3. On a level surface, engage the PTO and lower the deck until it reaches the ground.

All four deck wheels should reach the ground at the same time. If they do not, adjust the deck links as necessary.

NOTE

When adjusting the deck links, disengage the PTO. Remove the hairpin clip and washer from the weld bolt. Thread eyebolt up or down the link as necessary, and reassemble.

4. Raise the deck 1/2" to 1" above the ground.

Check to be certain the distance from the bottom edge of the deck to the ground is the same on both sides of the deck. If it is not, adjust the links on the left side of the unit.

Check to be certain the front of the deck is 1/4" to 3/8" lower than the rear of the deck. If it is not, adjust the two front links to obtain this distance.

STEERING WHEEL ADJUSTMENT

There are four height positions for the steering wheel. To adjust the height of the steering wheel, remove the hex bolt and hex lock nut on the steering shaft. Place the steering wheel in the position desired and secure with hex bolt and hex lock nut. Refer to figure 4.

NOTE

When raising the height of the steering wheel, stretch the steering bellow to cover the steering shaft.

The steering shaft may also be adjusted if there is too much play between the steering gear and segment. To adjust, loosen the hex bolt and nut on the front of the bearing retainer bracket. See figure 16. Pry the bearing retainer bracket toward the right until the steering gear engages solidly into the teeth of the steering segment. Retighten the hex bolt and nut.

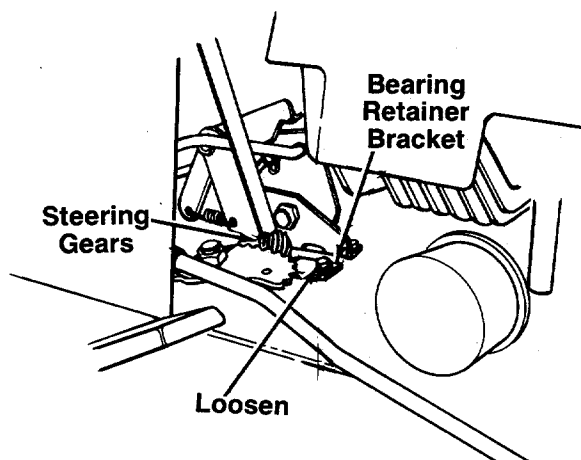


FIGURE 16.

BRAKE ADJUSTMENT (See figure 17)

The brake is located by the right rear wheel inside the frame. During normal operation of this machine, the brakes are subject to wear and will require periodic examination and adjustment.



WARNING

Do not adjust the brake while the engine is running. Be sure to block the wheels of the tractor before making the brake adjustment.

To adjust the brake, remove the cotter pin. Adjust the castle nut so the brake starts to engage when the brake lever is 1/4" to 5/16" away from the axle housing.

NOTE

Figure 17 is shown with the unit tipped up on rear wheels for clarity only.

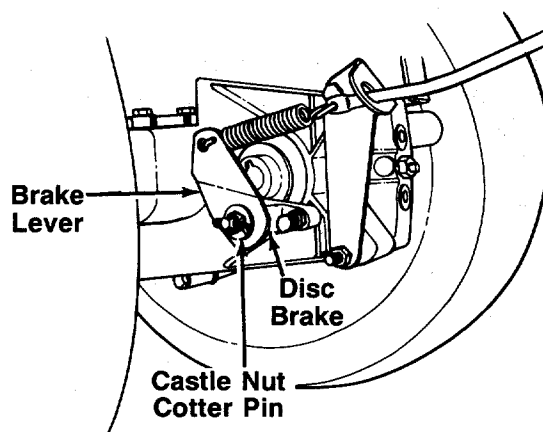


FIGURE 17.

CARBURETOR ADJUSTMENTS



WARNING

If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. Refer to separate engine manual for carburetor adjustment information.

NOTE

A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

LUBRICATION



WARNING

Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn tractor.

STEERING GEARS

Lubricate teeth of steering gears with automotive multi-purpose grease after every 25 hours of operation or once a season. Refer to figure 16.

STEERING SHAFT

Lubricate steering shaft at least once a season with light oil.

TRANSAXLE

The transaxle is lubricated and sealed at the factory and does not require checking. If disassembled for any reason, lubricate with 16 oz. of grease, part number 737-3047.

LINKAGE

Once a season lubricate all the pivot points on the clutch, brake and lift linkage with SAE 30 engine oil.

FRONT WHEELS

The front wheels are provided with grease fittings. The rear wheels must be removed from the axle for lubrication. Lubricate at least once a season with automotive multi-purpose grease.

PIVOT POINTS

Lubricate all points with light oil at least once a season.

BALL JOINTS

The ball joints and drag link ends are permanently lubricated.

HYDROSTATIC FLUID LEVEL

The transmission has been filled at the factory and should not require changing for the life of the transmission.

The transmission fluid level should be checked prior to initial use. The level should not be above the LOWER mark which is about 1/4" from the bottom of the expansion tank. See figure 18. Overfilling reduces the expansion area in the expansion tank and fluid will spill at operating temperatures.

If transmission fluid is needed, use only 10W30 engine oil rated SF or CD.

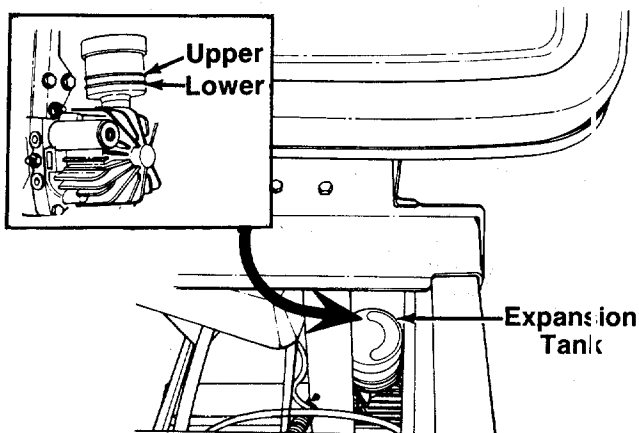


FIGURE 18.

To check or add fluid to the transmission:

1. Unscrew the parking brake and relief valve knobs.
2. Unscrew the two screws holding the access cover located in front of the seat.
3. Check the fluid level in the expansion tank. See figure 18.

4. If it is necessary to add fluid, unscrew the cap on the expansion tank. The cap has left hand threads. See figure 19. Remove the rubber bladder. Add fluid using a funnel. Do not overfill.
5. Reassemble parts.

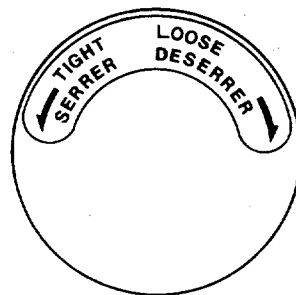


FIGURE 19.

If frequent additions are required, locate the leak and correct. Inadequate supply of fluid may result in permanent internal damage.

If the natural color of the transmission fluid has changed, black or milky, overheating and/or water contaminate is indicated. The fluid should be drained and replaced with new transmission fluid.

To drain the hydrostatic transmission, remove the hex plug on the bottom of the hydrostatic transmission.

Hydrostatic Transmission Cooling

The hydrostatic transmission is cooled by the oil, fan and fins. If the hydrostatic transmission runs hot, check to see if the fan is in operating condition, the oil level is correct and the fins are clean.

NOTE

DO NOT use high pressure water spray or steam to clean the hydrostatic transmission.

MAINTENANCE



WARNING

Disconnect the spark plug wire and ground against the engine before performing any adjustments, repairs or maintenance.

TROUBLE SHOOTING

Refer to the chart on pages 20 and 21 for trouble shooting engine problems.

CRANKCASE OIL

Check the oil level in the crankcase before each use of the machine and after every two hours of operation. Oil level should be maintained as instructed in the separate engine manual.

After the first two hours of operating a new engine, drain the oil from the crankcase while engine is still hot and refill crankcase with new oil; thereafter change the oil after every 25 hours of operation. Refer to the engine manual.

FUEL FILTER

Your unit is equipped with a replaceable in-line fuel filter. Replace filter whenever contamination or discoloration is noticed. Order replacement filter through your authorized engine service dealer.

WHEEL ADJUSTMENT

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) require no adjustment. Automotive steering principles have been used to determine the caster and camber on the tractor. The front wheels should toe-in 1/8 inch.

To adjust the toe-in, follow these steps.

1. Remove the hex nut and lock washer, and drop the end of the tie rod from the axle bracket. See figure 20.
2. Loosen the hex jam nut on tie rod.
3. Adjust the tie rod assembly for correct toe-in.

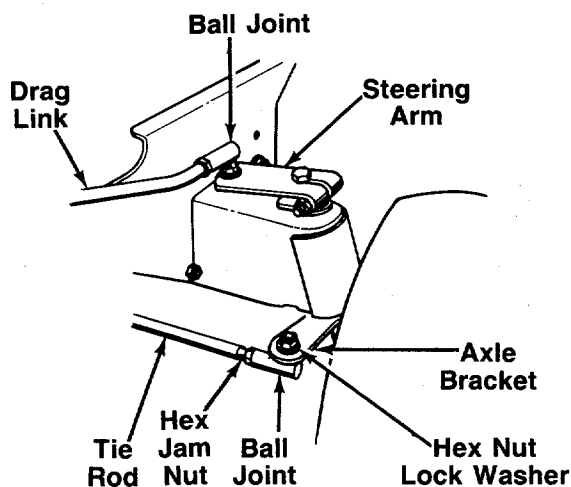


FIGURE 20.

Dimension "B" should be approximately 1/8" less than Dimension "A." See figure 21. To increase Dimension "B," screw tie rod into tie rod end. To decrease Dimension "B," unscrew tie rod from tie rod end. Reassemble tie rod. Check dimensions. Readjust if necessary.

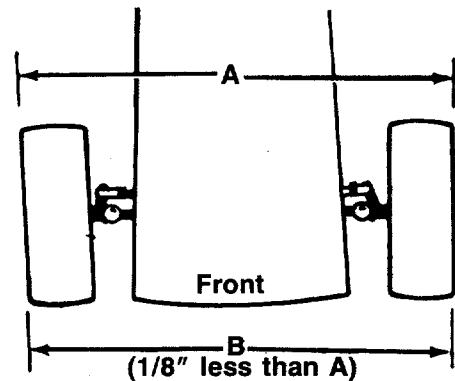


FIGURE 21.

DRAG LINK

If the drag link or ball joints are changed, the new assembly must be adjusted to the exact same length as the original. If adjusted incorrectly, it will allow the tractor to turn sharper one direction than the other.

To take off the drag link, remove the nuts and lock washers holding the ball joint to the steering gear and right front axle bracket. See figure 20.

ENGINE

Refer to separate engine manual for all engine maintenance procedures.

MAINTENANCE OF BATTERY

1. Check electrolyte level periodically (at least every two weeks). Keep the level to the split rings. Use only distilled water or a good quality drinking water. Never add acid or any other chemicals to the battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, the battery should be recharged. Maximum charge rate 5 AMPS.
3. Coat the terminals and exposed wire with a thin coat of grease or petroleum jelly for longer service and protection against corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with soda and water. Be careful not to get this solution in the cells.
5. Avoid tipping the battery. Even a "sealed" battery will leak electrolyte when tipped.

STORAGE OF THE BATTERY

1. Charge battery using normal methods. NEVER store discharged battery as it will not recover.
2. When storing battery for extended periods, disconnect battery cables. Removing battery from unit is recommended.
3. Store in cold, dry place.
4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service, or every two months, whichever occurs first.

COMMON CAUSES FOR BATTERY FAILURE

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

NOTE

These failures do not constitute warranty.

BATTERY REMOVAL OR INSTALLATION



WARNING

When removing the battery, follow this order of disassembly to prevent your wrench from shorting against the frame.

1. Remove the Negative cable.
2. Remove the Positive cable.

To install a battery:

1. Attach the Positive cable.
2. Attach the Negative cable.

JUMP STARTING

1. Attach the first jumper cable from the Positive terminal of the good battery to the Positive terminal of the dead battery.
2. Attach the second jumper cable from the Negative terminal of the good battery to the FRAME OF THE UNIT WITH THE DEAD BATTERY.



WARNING

Failure to use this starting procedure could cause sparking, and the gases in either battery could explode.

TIRES

Recommended operating tire pressure is approximately 12 p.s.i. (check sidewall of tire for tire manufacturer's recommended pressure). Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on all tires.

When installing a tire to the rim, be certain rim is clean and free of rust. Lubricate both the tire and rim generously. Never inflate to over 30 p.s.i. to seat beads.



WARNING

Excessive pressure (over 30 p.s.i.) when seating beads may cause tire/rim assembly to burst with force sufficient to cause serious injury.

DRIVE BELT REPLACEMENT (See figure 22)

1. Depress the clutch pedal and set parking brake.
2. Remove the deck from the tractor.
3. Raise and block the front wheels of the tractor so you can work under it.
4. Remove the four self-tapping screws which hold the belt keeper assembly to the frame at the engine pulley. Push the belt keeper assembly forward, out of the way. See figure 22.

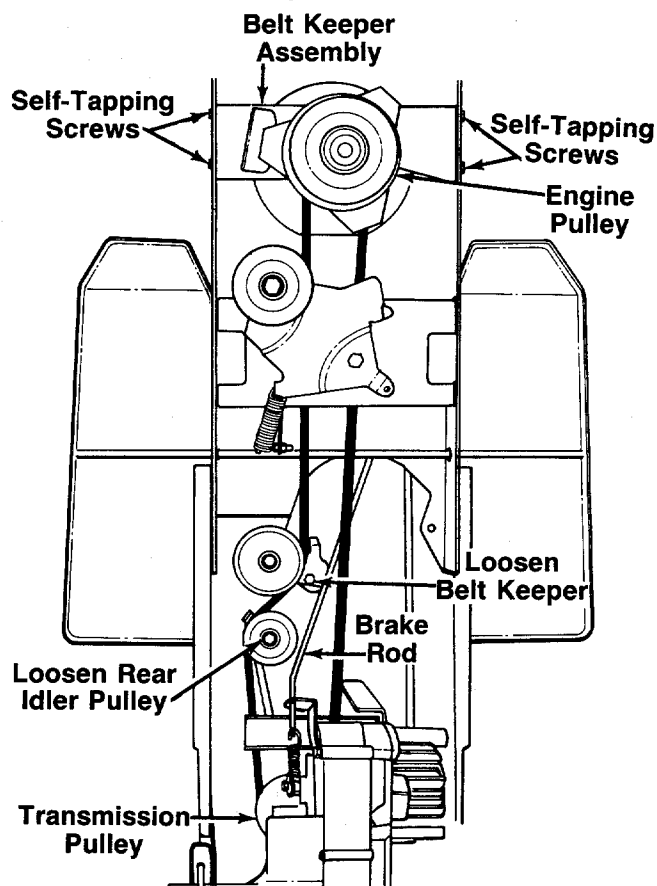


FIGURE 22.

5. Remove the rear belt guard at the transmission pulley by removing the two self-tapping screws shown in figure 23.

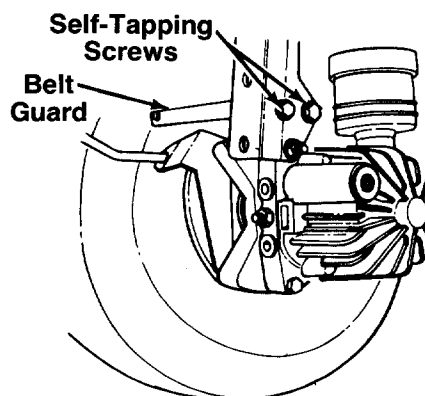


FIGURE 23.

6. Loosen the hex bolt which acts as a belt keeper by the front idler pulley.
7. Loosen the rear idler pulley. Remove the belt from around both idler pulleys.
8. Unplug the electric PTO clutch.
9. Roll belt up off engine pulley, onto the pulley hub to obtain slack in the belt.
10. Remove belt from the transmission pulley, lifting the belt up over the fan on top of the pulley.
11. Remove belt from the engine pulley.
12. Release the parking brake (be certain unit is blocked securely). Disconnect the brake rod from the clutch-brake pedal by removing the hairpin clip and flat washer.
13. Remove the belt from around the brake rod. See figure 24.

Reassemble using a new belt, following instructions in reverse order.

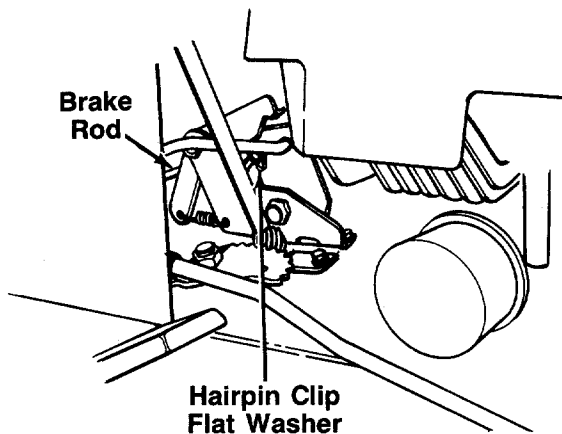


FIGURE 24.

OFF-SEASON STORAGE

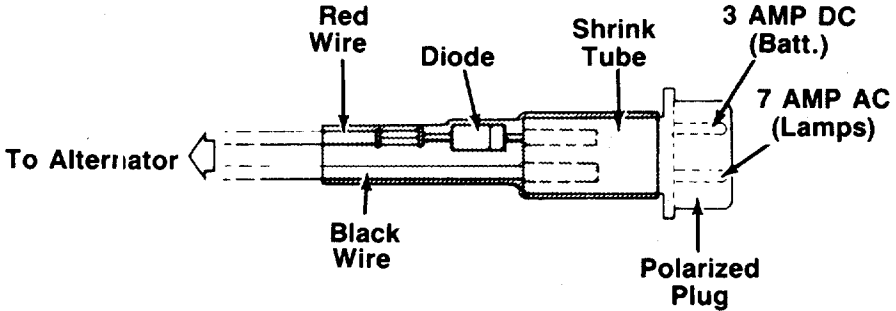
If the machine is to be inoperative for a period longer than 30 days, prepare for storage as follows.

1. Clean the engine and the entire unit thoroughly.
2. Lubricate all lubrication points. Wipe the entire machine with an oiled rag to protect the surfaces.
3. Refer to the engine manual for correct engine storage instructions. The engine must be completely drained of fuel to prevent gum deposits from forming on essential carburetor parts, fuel lines and fuel tanks.
4. Refer to battery storage instructions on page 17.
5. Store unit in a clean, dry area.

NOTE

When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative terminal, identified at the terminal post by (Neg, N or -), grounded. The positive terminal (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blown fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrician's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	<p>Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined: (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working.</p> <p>The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.</p> <div style="text-align: center;">  <p>The diagram shows a cross-section of the wiring harness. On the left, a red wire labeled 'Red Wire' and a black wire labeled 'Black Wire' are shown. The red wire is connected to a '3 AMP DC (Batt.)' terminal. The black wire is connected to a '7 AMP AC (Lamps)' terminal. Both wires pass through a 'Diode' and a 'Shrink Tube' before reaching the 'To Alternator' terminal. A 'Polarized Plug' is also shown connected to the battery terminal.</p> </div> <p>The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not, the alternator (stator) or lead wire is bad and should be replaced.</p>
Engine cranks but will not start	Mechanical failure (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. WARNING: While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. If the engine does not crank: (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.
	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.
Engine cranks but will not start	No spark to spark plug	<p>Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer.</p> <p>Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.</p>

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel line or in-line fuel filter plugged. Remove and clean fuel line. Replace filter if necessary.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	Stop engine immediately. Check all pulleys, blade adapters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	Stop engine immediately. Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low Transmission selection Blades short or dull	Throttle must be set between 3/4 and full throttle. Use lower transmission speed. The slower your ground speed, the better the quality of cut. Sharpen or replace blades (uncut strip problem only).

HYDROSTATIC TRANSMISSION TROUBLE SHOOTING

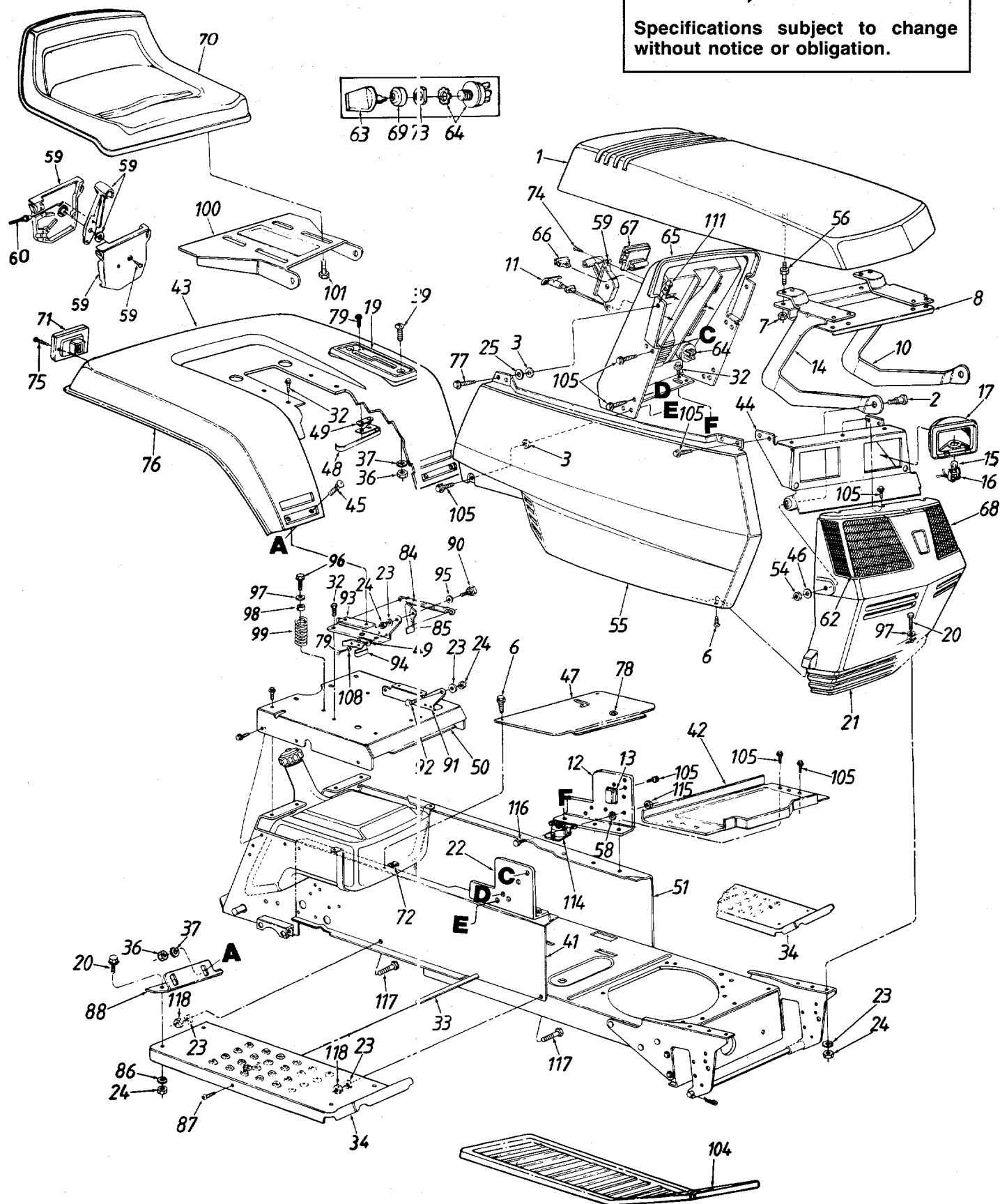
No output torque (power) in either direction, cold start.	<ol style="list-style-type: none"> 1. Recheck relief valve position, control linkage, input drive. 2. Oil level in reservoir low. 3. Broken control shaft dowel pin. Transmission must be repaired or replaced.
Loss of output torque, continuous load.	<ol style="list-style-type: none"> 1. Operating at conditions approaching hydraulic stall. The transmission fluid has exceeded 180° F. 2. Internal leakage due to wear. Transmission should be repaired or replaced. 3. Water in transmission fluid. Purge system of all fluid and replace with new transmission fluid. Replacement of the transmission is generally not necessary.
No output torque in one direction.	<ol style="list-style-type: none"> 1. One of the directional valves is stuck. Transmission should be repaired or replaced. 2. Low oil level.
Lawn tractor cannot be pushed with engine off.	<ol style="list-style-type: none"> 1. Relief valve control not set. 2. Relief valve travel not adjusted. 3. Motor piston or rotor seized. Transmission must be repaired or replaced.
No neutral.	<p>Recheck linkage. Loose linkage creates an adjustment problem.</p> <p>Note: The hydraulic neutral band is very narrow. Deflection in the linkage may make it difficult to obtain neutral from both directions. It is recommended that neutral should be positive from forward drive.</p>
Oil leakage at the control shaft seal.	<ol style="list-style-type: none"> 1. Spillage when fluid has been added to the reservoir. 2. Spillage at the vent in the reservoir at operating temperatures due to cold level being too high or water in the fluid. Reduce fluid level or replace fluid in the event there is water in it (milky color). 3. Loose oil reservoir or cover. 4. Loose vent bolt. 5. Damaged control shaft seal. Transmission should be repaired.
Noisy operation.	<ol style="list-style-type: none"> 1. Operating at part throttle. Hydrostatic transmission is designed to operate with the engine running at full throttle. 2. Water in transmission fluid. Replace transmission fluid. 3. Air in transmission fluid. Bleed air from vent.
Output shaft rotates in the opposite direction.	The transmission body is 180° out of position. Transmission has to be removed and reassembled correctly.

Model 784



NOTE

Specifications subject to change without notice or obligation.



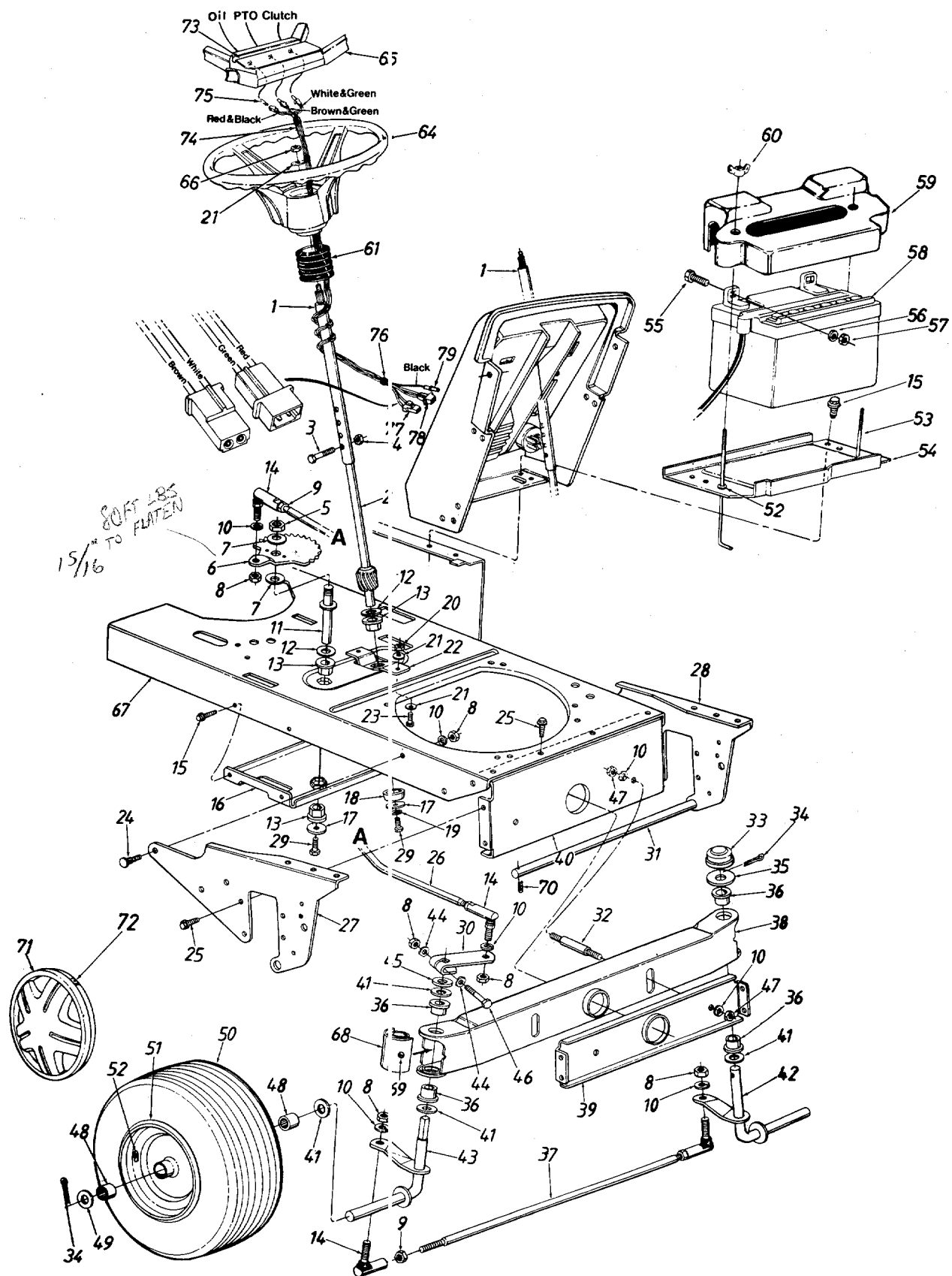
Model 784

PARTS LIST FOR MODEL 784 LAWN TRACTOR

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	16823	638	Hood	63	725-1341B	N	Ignition Key
2	738-0141		Shld. Bolt .437" Dia. x .35"	64	725-0267		Ignition Switch
3	726-0233		Bolt Retainer 1/4" I.D.	65	731-0958	N	Dash Panel
6	710-0351		Truss Mach. B-Tap Scr. #10 x .5" Lg.	66	725-0634		Light Switch
7	712-0107		Hex Patch L-Nut 1/4-20 Thd.	67	725-0925		Ammeter
8	16808	N	Hood Reinforcement	68	731-0949	N	Lens—L.H.
10	17271		Hood Hinge—L.H.	69	725-1347		Ignition Switch Cap
11	746-3022B	N	Choke Control	70	757-0350	N	Seat Ass'y. <i>w/o switch</i>
12	17294		Dash Support Brkt.—L.H.	71	725-3018	N	Taillight Ass'y.
13	725-1382		Circuit Breaker	72	726-0139		Speed Nut #10Z
14	17270		Hood Hinge—R.H.	73	725-1346		Ignition Switch Nut
15	725-0963		Lamp	74	710-0779A	N	Truss Mach. AB-Tap Scr. #10 x .5" Lg.
16	725-1058		Twist Lock—Lamp Socket	75	710-0936		Truss Hd. AB-Tap Scr. #6 x .62" Lg.
17	731-0705		Headlight Housing	76	731-0511		Trim Strip—81"
19	731-1053	N	Speed Control Index Brkt.	77	710-0642		Hex Wash. Hd. Tap Scr. 1/4 x .75" Lg.
20	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	78	731-0405		Snap Bushing
21	731-0935A	N	Grille	79	710-0227		Hex Wash. Hd. AB-Tap Scr. #8 x .50" Lg.
22	17293		Dash Support Bracket—R.H.	84	732-0581		Ext. Spring 5.31" Lg.
23	736-0119		L-Wash. 5/16" I.D.*	85	17239A	N	Seat Lift Brkt.
24	712-0267		Hex Nut 5/16-18 Thd.*	86	736-0242		Bell-Wash. .345" I.D. x .88" O.D.
25	736-0176		Fl-Wash. 1/4" I.D. x .93" O.D.	87	710-0323		Truss Machine Scr. 5/16-18 x .75" Lg.
32	710-0726		Hex Wash. Hd. AB-Tap Scr. 5/16 x .75" Lg.	88	17406	N	Fender Bracket—R.H.
33	738-0435		Running Board Rod		17407	N	Fender Bracket—L.H.
34	16922	N	Running Board—R.H.	90	738-0296		Shld. Bolt .437" Dia. x .268"
	16921	N	Running Board—L.H.	91	17243		Seat Pivot Brkt. Support—L.H.
36	712-0287		Hex Nut 1/4-20 Thd.*	92	738-0155		Shld. Bolt .437" Dia. x .162"
37	736-0329		L-Wash. 1/4" I.D.*	93	17244		Seat Pivot Brkt. Support—R.H.
39	710-0946		Truss Mach. Scr. 1/4-20 x .62" Lg.	94	725-1303		Spring Switch
41	17360	N	R.H. Side Frame	95	736-0141		Spr.-Wash. .445" I.D.
42	13379		Battery Carrier	96	710-0601		Hex Wash. Hd. Tap Scr. 5/16-18 x .75" Lg.
43	17330	629/N	Rear Fender	97	736-0159		Fl-Wash. .344" I.D.
44	17223		Light Bracket	98	722-0160		Bushing
45	710-0167		Carriage Bolt 1/4-20 x .50" Lg.*	99	732-0588		Compression Spring
46	736-0278		Fl-Wash. .328" I.D. x .68" O.D.	100	15607D	N	Seat Pivot Bracket
47	17393	N	Transmission Panel	101	710-0623		Hex Tap Scr. 3/8-16 x .75"
48	725-0759		Reverse Safety Switch	104	731-1051	N	Foot Pad
49	726-0222		Insulator Nut Plate	105	710-0599		Hex Tap Scr. 1/4-20 x .5" Lg.
50	16848	N	Seat Plate	108	736-0426		Fiber Washer
51	17361	N	L.H. Side Frame	111	712-0185		Speed Nut 1/4-20 Thd.
54	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	114	725-0771		Solenoid
55	17448	629/N	Side Cover—R.H.	115	712-0271		Hex Sems Nut 1/4-20 Thd.
	17447	629/N	Side Cover—L.H. (Not Shown)	116	710-0289		Hex Bolt 1/4-20 x .5" Lg.*
56	710-1034	N	Double Ended Stud 1/4-20 Thd.	117	710-1012		Rib Neck Bolt 5/16-24 x .75" Lg.
58	736-0222		Ext. L-Wash. 1/4" I.D.	118	712-0123		Hex Nut 5/16-24 Thd.
59	831-0823A	N	Throttle Control Box Ass'y.				
60	746-0634		Throttle Control Wire 35" Lg.				
62	731-0948		Lens—R.H.				

*For faster service obtain standard nuts, bolts and washers locally.
If these items cannot be obtained locally, order by part number and
size as shown on parts list.

Model 784



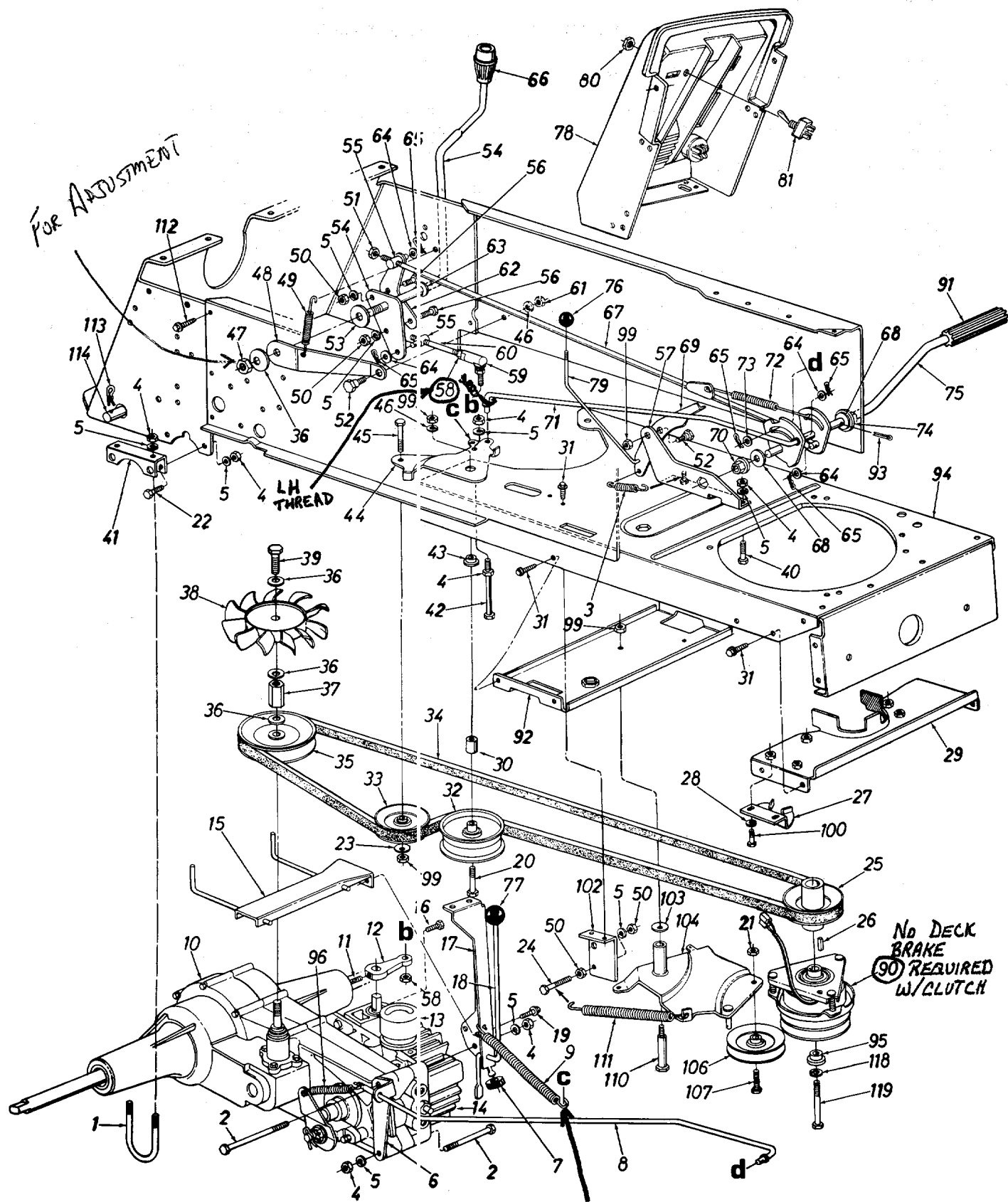
Model 784

PARTS LIST FOR MODEL 784 LAWN TRACTOR

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	16512		Steering Column Ass'y.	38	16843	N	Pivot Bar Assy.
2	738-0763	N	Lower Steering Shaft	39	16889	N	Pivot Bar Support Brkt.—Front
3	710-0958		Hex Bolt 1/4-20 x 1.31" Lg.	40	16890	N	Pivot Bar Support Brkt.—Rear
4	712-0324		Hex L-Nut 1/4-20 Thd.	41	736-0188		Fl-Wash. .76" I.D. x 1.49" O.D.
5	712-0337		Hex Nut 5/8-18 Thd.*	42	738-0781	N	Front Axle Ass'y.—L.H.
6	717-0943	N	Steering Gear Segment	43	738-0782	N	Front Axle Ass'y.—R.H.
7	736-0317		Bell-Wash. 5/8" I.D. x 1.25" O.D.	44	736-0286		Bowed Washer
8	712-0241		Hex Nut 3/8-24 Thd.	45	748-0160		Spacer .755" I.D. x 1.25" O.D.
9	712-0711		Hex Jam Nut 3/8-24 Thd.	46	710-0331		Hex Bolt 3/8-24 x 2.25" Lg.
10	736-0169		L-Wash. 3/8" I.D.*	47	712-0798		Hex Nut 3/8-16 Thd.*
11	738-0768		Steering Gear Segment Shaft	48	741-0515	N	Needle Brg. .75" I.D.
12	736-0187		Fl-Wash. .64" I.D. x 1.24" O.D.	49	736-0316		Fl-Wash. .71" I.D. x 1.5" O.D.
13	748-0227		Hex Flange Brg. .63" I.D.	50	734-1570	N	Wheel Ass'y. Comp.
14	723-3018		Ball Joint Ass'y.		734-0864		Tire Only
15	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.	51	734-1568	N	Rim Only
16	16888	N	Deck Idler Support Brkt.	52	726-0271		Push Nut
17	736-0343		Fl-Wash. .33" I.D. x 1.25" O.D.	53	711-0222		Battery Hold Down Rod
18	750-0532		Spacer .985" I.D. x 1.25" O.D.	54	13379		Battery Carrier
19	736-0119		L-Wash. 5/16" I.D.*	55	710-0258		Hex Bolt 1/4-20 x .62" Lg.*
20	712-0123		Hex Nut 5/16-24 Thd.*	56	736-0329		L-Wash. 1/4" I.D.*
21	736-0242		Bell-Wash. .345" I.D. x .88" O.D.	57	712-0287		Hex Nut 1/4-20 Thd.*
22	16894	N	Bearing Retainer Brkt.	58	725-0453A	N	Battery
23	710-0157		Hex Bolt 5/16-24 x .75" Lg.	59	731-0707		Battery Cover
24	710-0793		Ribbed Neck Bolt 3/8-24 x .8" Lg.	60	712-0113		Wing Nut Plastic 1/4-20 Thd.
25	710-0604		Hex Wash. TT-Tap Scr. 5/16-18 x .62" Lg.	61	731-0954		Steering Bellow
26	747-0579	N	Steering Drag Link	64	731-0806A	N	Steering Wheel
27	16896	N	Pivot Bar Side Plate—R.H.	65	731-0955		Steering Wheel Insert
28	16897	N	Pivot Bar Side Plate—L.H.	66	712-0237		Hex L-Nut 5/16-24 Thd.
29	710-0538		Hex Bolt 5/16-18 x .62" Lg.	67	17359	N	Lower Frame
30	16918	N	Steering Arm	68	731-1049	N	Pivot Bar End Cap
31	738-0777	N	Deck Connecting Rod	69	737-0146		Grease Fitting
32	738-0775		Pivot Bar Shld. Bolt 3/8-16 x 5/8" Lg.	70	714-0149B	N	Internal Cotter Pin
33	731-0484		Cap	71	734-1503		Hub Cap
34	714-0121		Cotter Pin 5/32" Dia.	72	727-0425	N	Spring Clip
35	736-0316		Flat Washer	73	777-7993		Steering Wheel Insert Label
36	741-0523		Flange Brg. .757" I.D.	74	725-1364		Wire Harness (Incl. Ref. 75)
37	747-0721		Tie Rod 20.25" Lg.	75	725-1365		Bulb
				76	729-0204		Clamp
				77	729-0139		Connector
				78	729-0166		Connector
				79	729-0132		Connector

*For faster service obtain standard nuts, bolts and washers locally.
If these items cannot be obtained locally, order by part number and size as shown on parts list.

Model 784



HOOK TO CLUTCH

26

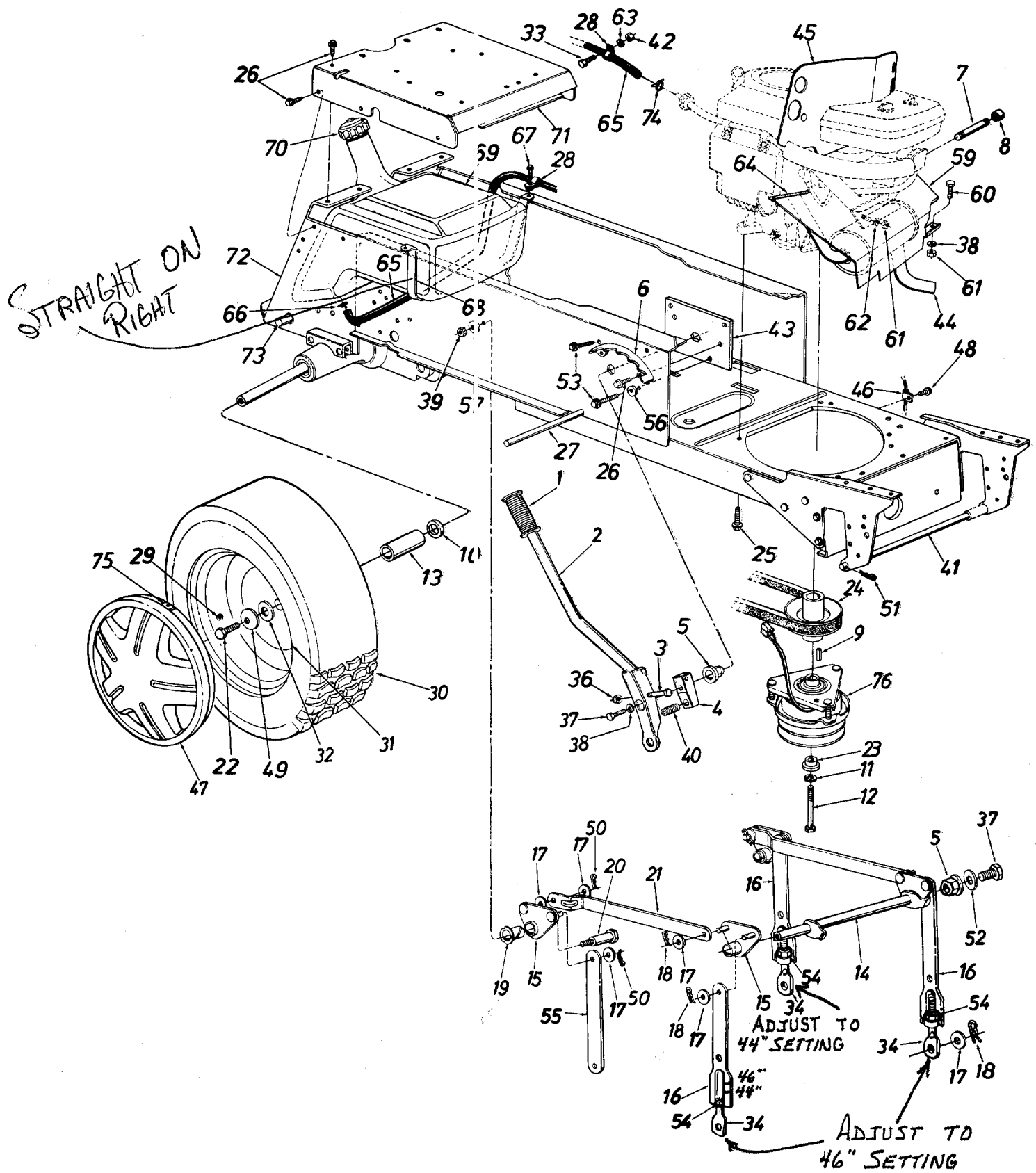
IDLER ROD IF UNIT
SURGES- RIDING WITH FOOT
ON PEDAL

Model 784

PARTS LIST FOR MODEL 784 LAWN TRACTOR

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	711-0827	N	U-Bolt 5/16-18 x 3.25" Lg.	51	712-0711		Hex Jam Nut 3/8-24 Thd.
2	710-3196	N	Hex Patch Bolt 5/16-18 x 4.5" Lg. (Gr. 5)	52	738-0147		Shld. Bolt .50" Dia. x .170"
3	732-0445		Ext. Spring .5" O.D. x 1.55"	53	736-0428	N	Fiber Washer .54" I.D. x 1.75"
4	712-0267		Hex Nut 5/16-18 Thd.*	54	16930		Speed Control Handle Ass'y.
5	736-0119		L-Wash. 5/16" I.D.*	55	711-0198		Ferrule 3/8-24 Thd.
6	17355	N	Brake Rod Guide Brkt.	56	710-0237		Hex Bolt 5/16-24 x .62" Lg.
7	735-0126		Rubber Wash. .33" I.D. x .87"	57	17348	N	Foot Pedal Mtg. Brkt.
8	747-0731	N	Brake Rod	58	712-0312		Hex Jam Nut 3/8-24 L.H. Thd.
9	732-0384		Ext. Spring .62" O.D. x 6.12" Lg.	59	723-0351		Ball Joint Ass'y.
10	717-0950	N	Transaxle	60	747-0508		Control Rod 3/8-24 x 3.75" Lg.
11	710-0985	N	Set Screw 5/16-24 x .38" Lg.	61	712-0798		Hex Nut 3/8-16 Thd.*
12	748-0328	N	Pintle Shift Lever	62	16940	N	Speed Selector Handle Brkt.
13	717-3049	N	Reservoir	63	736-0257		Fl-Wash. .531" I.D. x 1.25" O.D.
14	717-0940	N	Hydrostatic Pump	64	736-0140		Fl-Wash. .385" I.D. x .62" O.D.
15	16929	N	Belt Guard Ass'y.	65	714-0104		Internal Cotter Pin
16	710-3195	N	Hex Bolt 5/16-18 x 4.5" Lg. (Gr. 5)	66	720-0218		Shift Knob
17	16807	N	Transaxle Torque Bracket	67	17416	N	Neutral Return Rod
18	747-0570	N	Transaxle Control Rod	68	736-0187		Fl-Wash. .64" I.D. x 1.24" O.D.
19	710-0603		Hex Wash. Hd. B-Tap Scr. 5/16-18	69	17351	N	Parking Brake Lock Brkt.
20	710-3066		Hex Bolt 3/8-16 x 2.75" Lg.	70	741-0225		Hex Flange Brg. .634" Dia.
21	712-0214		Hex Cent. Lock Nut 3/8-16 Thd.	71	747-0728		Clutch Idler Rod
22	710-3008		Hex Bolt 5/16-18 x .75" Lg. (Gr. 5)	72	732-0608		Extension Spring 8" Lg.
23	736-0300		Fl-Wash. .385" I.D. x .87" O.D.	73	736-0264		Fl-Wash. .344" I.D. x .62" O.D.
24	710-0409		Hex Bolt 5/16-24 x 1.75" Lg.	74	748-0209		Flange Bearing w/Flats
25	756-0575	N	Engine Pulley	75	17350	N	Foot Pedal Ass'y.
26	714-0118		Sq. Key 1/4 x 1.5" Lg.	76	720-0166		Ball Knob Brake
27	17418	N	Torque Bracket	77	720-0187		Ball Knob 1/4-20 Thd.
28	736-0242		Bell-Wash. .345" I.D. x .88" O.D.	78	731-0958	N	Dash Panel Ass'y.
29	17357	N	Belt Keeper Brkt. Ass'y.	79	747-0722		Parking Brake Link
30	711-0396		Spacer .375" I.D. x .75" Lg.	80	712-3014	N	Hex Nut 1/2-27 Thd.
31	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.	81	725-0893	N	Toggle Switch PTO
32	756-0515		Fl-Idler Pulley 3.25" Dia.	90	717-0949	N	Electric Clutch
33	756-0116		V-Belt Idler	91	735-0196		Foot Pad
34	754-0365	N	V-Belt 83.24	92	16888	N	Deck Idler Support Brkt.
35	756-0539	N	Transmission Pulley 4.25" O.D.	93	714-0115		Cotter Pin 1/8" Dia.
36	736-0112	N	Bell-Wash. .56" I.D. x 1.5"	94	17359	N	Lower Frame
37	712-0356	N	Fan Adapter Nut 9/16-18 Thd.	95	738-0785	N	Shoulder Spacer
38	731-0974	N	Fan	96	732-0607		Ext. Spring 3.675" Lg.
39	710-1043	N	Hex Bolt 9/16-18 x .5" Lg.	99	712-0375		Hex Cent. L-Nut 3/8-16 Thd.
40	710-0118		Hex Bolt 5/16-18 x .75" Lg.*	100	710-3008		Hex Bolt 5/16-18 x .75" Lg. (Gr. 5)
41	16925	N	Transaxle Mtg. Bracket	102	13833		Parking Brake Mtg. Brkt.
42	710-0176		Hex Bolt 5/16-18 x 2.75" Lg.*	103	736-0105		Bell-Wash. .380" I.D. x .88" O.D.
43	738-0347		Shld. Spacer .625" I.D.	104	14076A	N	Idler Brkt. Deck Ass'y.
44	16926	N	Clutch Idler Bracket	106	756-0293A	N	V-Belt Idler
45	710-0344		Hex Bolt 3/8-16 x 1.5" Lg.	107	710-0459		Hex Bolt 3/8-24 x 1.5" Lg.
46	736-0169		L-Wash. 3/8" I.D.*	110	738-0129		Shld. Bolt .498" Dia. x 2.05"
47	712-0922		Hex Jam Nut 1/2-20 Thd.	111	732-0180		Ext. Spring 4.0" Lg.
48	16931		Speed Control Rod Torque Brkt.	112	710-0726		Hex Wash. AB-Tap Scr. 5/16 x .75" Lg.
49	732-0609		Ext. Spring 2.5" Lg.	113	714-0147		Hitch Pin Clip
50	712-0123		Hex Nut 5/16-24 Thd.	114	738-0482		Hitch Rod
				118	736-0171		L-Wash. 7/16" I.D.*
				119	710-1049		Hex Bolt 7/16-20 x 3.75" Lg.

Model 784



Model 784

PARTS LIST FOR MODEL 785 LAWN TRACTOR

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	720-0233	N	Grip	39	712-0181		Hex Top L-Nut 3/8-16 Thd.
2	17282		Lift Handle Ass'y.	40	732-0369		Compression Spring
3	710-0442		Hex Bolt 5/16-18 x 1.5" Lg.*	41	738-0777	N	Deck Connecting Rod
4	748-0274A	N	Lift Shaft Drive	42	712-0287		Hex Nut 1/4-20 Thd.*
5	741-0225		Plastic Hex Brg. 5/8" I.D.	43	14170		Index Brkt. Reinforcement Plate
6	14231		Index Brkt. Deck Lift	44	751-0474	N	Muffler
7	737-0164		Pipe Nipple 3/8-18 Npt.	45	17319		Heat Shield
8	737-0143		Pipe Cap 3/8-18 Npt.	46	726-0273	N	Mounting Clamp
9	714-0118		Sq. Key 1/4" x 1/4" x 1.50" Lg.	47	734-1504		Hubcap
10	736-0188		FI-Wash. .76" I.D. x 1.49" O.D.	48	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.
11	736-0171		L-Wash. 7/16" I.D.*	49	736-0242		Bell-Wash. .39" I.D.
12	710-1049	N	Hex Bolt 7/16-20 x 3.75" Lg.	50	714-0111		Cotter Pin .09 Dia. x 1.0" Lg.
13	731-1086	N	Sleeve .75" I.D. x 1.0" O.D.	51	714-0149B	N	Int. Cotter Pin
14	13889		Lift Shaft Ass'y.	52	736-0231		Flat Wash. .34" I.D. x 1.12" O.D. x .125"
15	13895		Lift Pivot Brkt. Ass'y.	53	710-0600		Hex Wash. Hd. AB-Tap Scr. 5/16-24 x .5" Lg.
16	17303		Adj. Deck Lift Link	54	712-0206		Hex Nut 1/2-13 Thd.
17	736-0192		FI-Wash. 1/2" I.D. x 1.00" O.D. x .090"	55	14399		Deck Link
18	714-0101		Hairpin Cotter	56	736-0264		FI-Wash. .344" I.D.
19	741-0295		Nyliner 5/8" I.D. x .88" Lg.	57	736-0219		Bell-Wash. .4" I.D. x 1.13" O.D.
20	738-0445		Shld. Bolt 5/8" Dia. x .96" Lg. 3/8-16	59	16934	N	Front Heat Shield
21	13790		Connecting Link	60	710-0118		Hex Bolt 5/16-18 x .75" Lg.*
22	710-0627		Hex Bolt 5/16-24 x .75" Lg.	61	712-0267		Hex Nut 5/16-18 Thd.*
23	738-0785	N	Shoulder Spacer	62	736-0170		L-Wash. 5/16" I.D. (Special)
24	756-0575	N	Engine Pulley	63	736-0329		L-Wash. 1/4" I.D.*
25	710-0502A	N	Hex Wash. Hd. Scr. 3/8-16 x 1.25" Lg.	64	731-0511		Trim Strip 10" Lg.
26	710-0726		Hex Thd. Rolling Scr. 5/16-18 x .75" Lg.	65	751-0535	N	Fuel Line 50" Lg.
27	738-0435		Running Board Rod	66	726-0205	N	Hose Clamp
28	726-0272		Clamp	67	710-0776		Hex AB-Tap Scr. 1/4 x .62" Lg.
29	734-0255		Air Valve	68	17424	N	Fuel Tank Strap
30	734-1064		Rear Wheel Ass'y. Comp.**	69	751-0528	N	Gas Tank
	734-1065		Tire Only**	70	751-0531	N	Gas Gauge
31	734-0603A	N	Rear Wheel Rim Only	71	16848	N	Seat Plate
32	736-0346		Flat Washer .34" I.D.	72	17343	N	Hitch Plate
33	710-0258		Hex Bolt 1/4-20 x .62" Lg.	73	738-0482		Hitch Rod
34	711-0817		Eye Bolt Adj. Link 1/2-13 Thd.	74	726-0207		Hose Clamp
36	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	75	727-0425	N	Spring Clip
37	710-0237		Hex Scr. 5/16-24 x .62" Lg.*	76	717-0949	N	Electric Clutch
38	736-0119		L-Wash. 5/16" I.D.*				

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

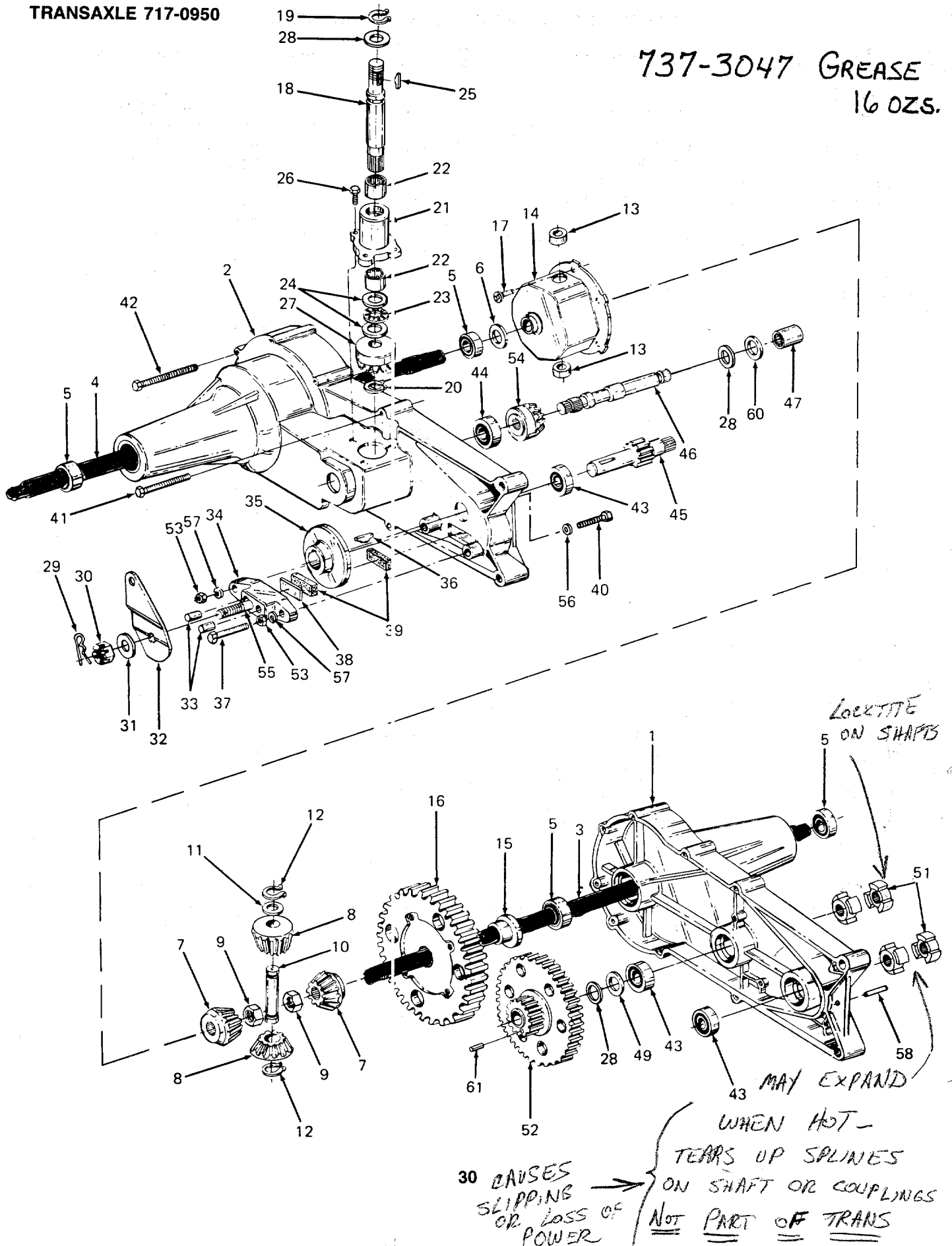
**NOTE: If brand of tire is important, order by part number and description (description is printed on the sidewall of tire) [i.e. Armstrong Super Turf, Goodyear Softrac, Carlisle Turf Saver, etc.].

2 YR WAIR.

Model 784

TRANSAXLE 717-0950

737-3047 GREASE
16 OZS.



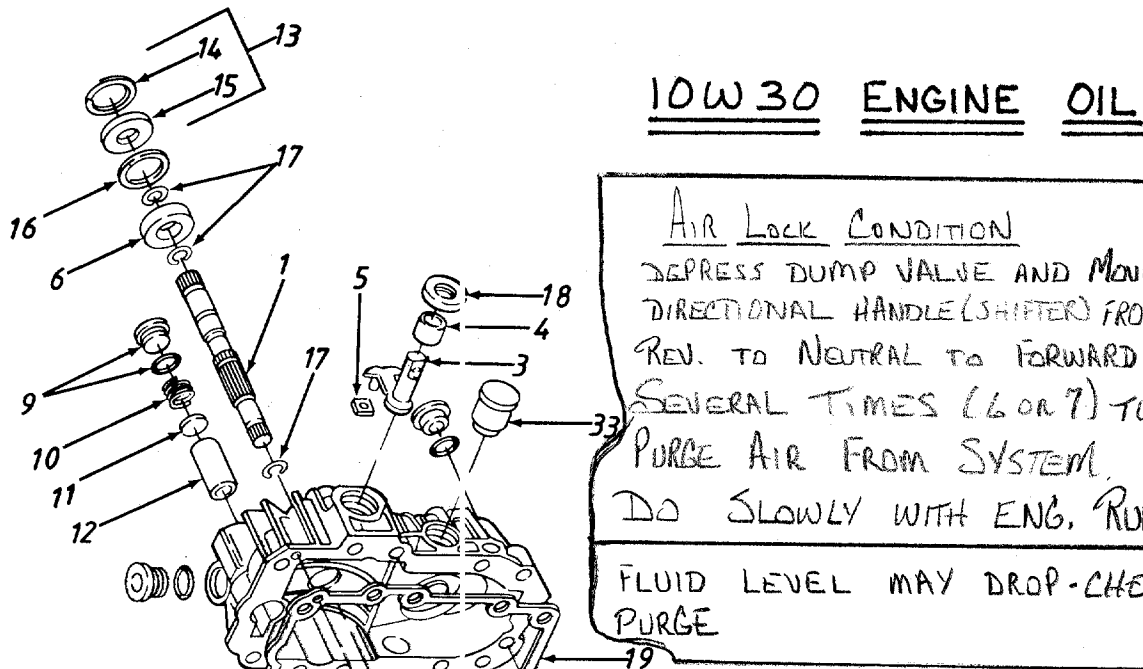
Model 784

PARTS LIST FOR TRANSAXLE 717-0950

REF. NO.	PART NO.	DESCRIPTION	QTY.	REF. NO.	PART NO.	DESCRIPTION	QTY.
1	AF-44077	Housing Half, L.H.	1	29	714-0507	Pin, Cotter	1
2	AF-44076	Housing Half, R.H.	1	30	712-0335	Nut, Castle, 5/16-24	1
3	AF-44393	Axle, L.H.	1	31	736-0371	Washer, Flat, .343 x .88 x .062 Thk.	1
4	AF-44392	Axle, R.H.	1	32	AF-44094	Arm, Brake Actuator	1
5	AF-44121	Bearing, Ball	4	33	741-0343	Pin, Actuating, 5/16 Dia.	2
6	AF-44008	Washer, Flat, .76 x 1-1/8" x .306 Thk. Hdn.	1	34	717-0679	Yoke, Brake	1
7	717-1019	Gear, Miter	2	35	717-0677	Disc, Brake	1
8	717-1020	Gear, Miter	2	36	714-0161	Key, Hi-Pro, 3/16 x 5/8 Dia.	1
9	712-0200	Nut, Hex Jam Patch Lock, 1/2-20	2	37	AF-44276	Screw, Hex Patch Lock, 1/4-20 x 1.5 Lg.	1
10	717-0673	Shaft, Cross	1	38	717-0682	Plate, Puck	1
11	736-0369	Washer, Flat, .505 I.D. x 1.0	2	39	717-0678	Puck, Brake	2
12	716-0142	Ring, Snap	1	40	AF-44277	Screw, Hex Cap, 1/4-20 x 1.5 Lg.	1
13	717-0690	Bearing, Thrust	2	41	AF-44123	Screw, Hex Self-Tap, 1/4-20 x 2.0 Lg.	2
14	717-0777	Housing Ass'y. Differential	1	42	AF-44124	Screw, Hex Self-Tap, 1/4-20 x 2.75 Lg.	6
15	741-0376	Bearing, Flange, .75 I.D. x .587	1	43	741-0155	Bearing, Ball	3
16	717-0759	Gear, Differential, 72 Tooth	1	44	741-0361	Bearing, Ball	1
17	710-0862	Screw, Pan Hd. Patch Lock 1/4-20 x .50 Lg.	4	45	AF-44083	Shaft, Pinion w/11 Tooth Gear	1
18	AF-44270	Shaft, Input	1	46	AF-44080	Shaft, Drive	1
19	716-0115	Ring, Snap	1	47	AF-44342	Bearing, Needle	1
20	716-0108	Ring, Retaining, Ext. 7/16 Dia.	1	49	AF-44110	Washer, Flat, 5/8 x 1.12 x .060 Thk.	1
21	AF-44081	Bearing, Input Housing	1	51	AF-44084	Coupling	4
22	741-0335	Bearing, Needle, 5/8 I.D. x .50 Lg.	2	52	AF-44082	Gear, Tooth 60 & 17	1
23	AF-44139	Bearing, Thrust	1	53	712-0298	Nut, Hex Jam, 1/4-20	1
24	AF-44109	Washer, Flat, 5/8 I.D. x 1.12 O.D. x .030 Thk.	2	54	AF-44079	Gear, Drive Pinion, 17 Tooth	1
25	714-0129	Key #4 Hi-Pro, 3/32 x 5/8 Dia. (Hdn.)	1	55	717-0796	Bolt, Square Hd. 5/16-24	1
26	AF-44122	Screw, Hex Patch Lock, 1/4-20 x 3/4 Lg.	3	56	736-0176	Washer, Flat, .265 x .938 x .12 Thk.	1
27	AF-44078	Gear, Input Pinion, 17 Tooth	1	57	736-0329	Washer, Lock, 1/4	1
28	736-0336	Washer, Flat, .62 I.D. x 1.0 O.D. x .030 Thk.	2	58	AF-44269	Pin, Roll, 3/16 Dia. x .50 Lg.	1
	736-0349	Washer, Flat, .62 I.D. x 1.0 O.D. x .020 Thk.	AR	60	AF-44343	Bronze Thrust Brg. 5/8" I.D.	1
	736-0337	Washer, Flat, .62 I.D. x 1.0 O.D. x .040 Thk.	AR	61	AF-44346	Dowel Pin 3/32" x 1/4"	1
				—	737-3047	Grease, Transmission	16 oz.

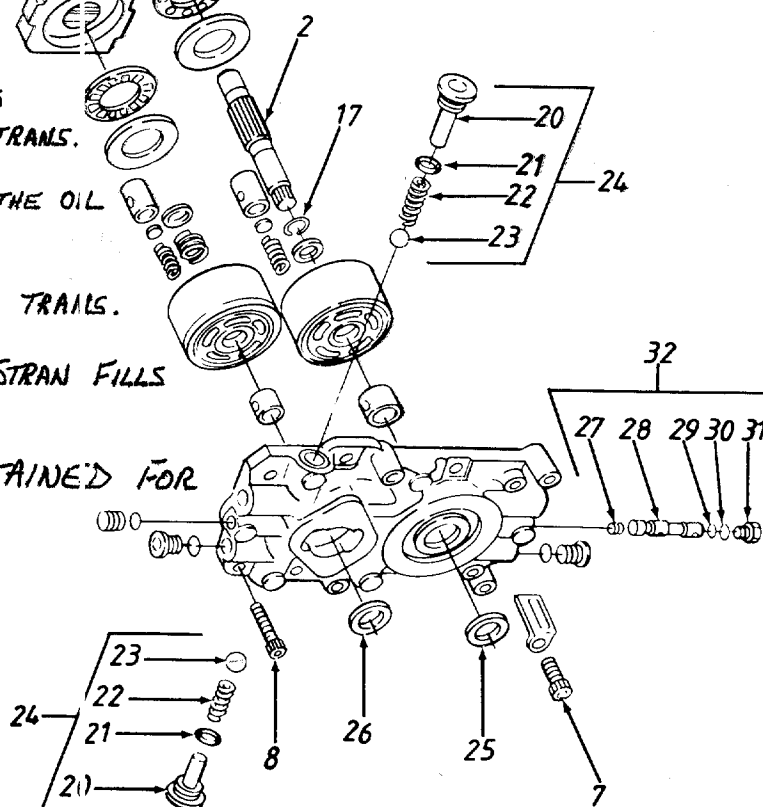
Model 784

HYDROSTATIC TRANSMISSION
717-0940



3-22-89

1. BLADDER IN RESERVOIR PREVENTS MOISTURE FROM ENTERING THE TRANS.
2. DOES NOT REQUIRE CHANGING OF THE OIL FOR THE LIFE OF TRANS.
3. NO PLUG PROVIDED FOR DRAINING OF TRAILS.
4. NO OIL CAPACITY PROVIDED - SUN STRAN FILLS TRANSMISSION. = 27 OZS.
5. OIL LEVEL MUST BE MAINTAINED FOR PROPER PERFORMANCE.



Model 784

ALL PARTS ARE
NET ITEMS

PARTS LIST FOR HYDROSTATIC TRANSMISSION 717-0940

REF. NO.	PART NO.	DESCRIPTION	QTY.	REF. NO.	PART NO.	DESCRIPTION	QTY.
1	SU-J1020650	Shaft—Pump	1	22	SU-J1041195	Spring	2
2	SU-J1020651	Shaft—Motor	1	23	SU-JHKW03	Ball	2
3	SU-J1030744	Arm, Trunnion	1	24	SU-J1742004	Kit, Check Valve (Includes Ref. No. 20, 21, 22 & 23)	2
4	SU-J1041151	Bearing, Journal	1				
5	SU-J1040980	Guide, Slot	1	25	SU-JSP0652	Seal, Lip	1
6	SU-JSP0631	Bearing, Ball	1	26	SU-J1040500	Seal, Lip	1
7	SU-JAAM0802001	Screw, Socket Head	4	27	SU-J1041178	Spring	1
8	SU-JAAM0803501	Screw, Socket Head	4	28	SU-J1041152	Spool, Bypass	1
9	SU-90051108700	Plug	1	29	SU-JKP1A003	O-Ring	1
10	SU-J1041159	Spring, Filter	1	30	SU-90042012500	O-Ring	1
11	SU-J1041158	Washer, Filter	1	31	SU-J1041153	Plug	1
12	SU-J1041157	Filter	1	32	SU-1742006	Kit, Bypass Valve ? (Includes Ref. No. 27, 28, 29, 30 & 31)	1
13	SU-J1742003	Kit, Seal (Includes Ref. No. 14 & 15)	1				
14	SU-JFBE0351	Ring, Retaining	1		SU-J1742008	Kit, Overhaul Seal [Includes Ref. No. 14, 15, 16, 17 (Qty. 4), 18, 19, 21 (Qty. 2), 25, 26, 29 & 30]	1
15	SU-JSP0632	Seal, Lip	1				
16	SU-J1040972	Spacer	1				
17	SU-J1040970	Ring, Retaining	4				
18	SU-JSP0633	Seal, Lip	1				
19	SU-J1020647	Gasket	1				
20	SU-J1041007	Plug	2	33	SU-J1742009	Reservoir	1
21	SU-90042013700	O-Ring	2				

515 239 6000

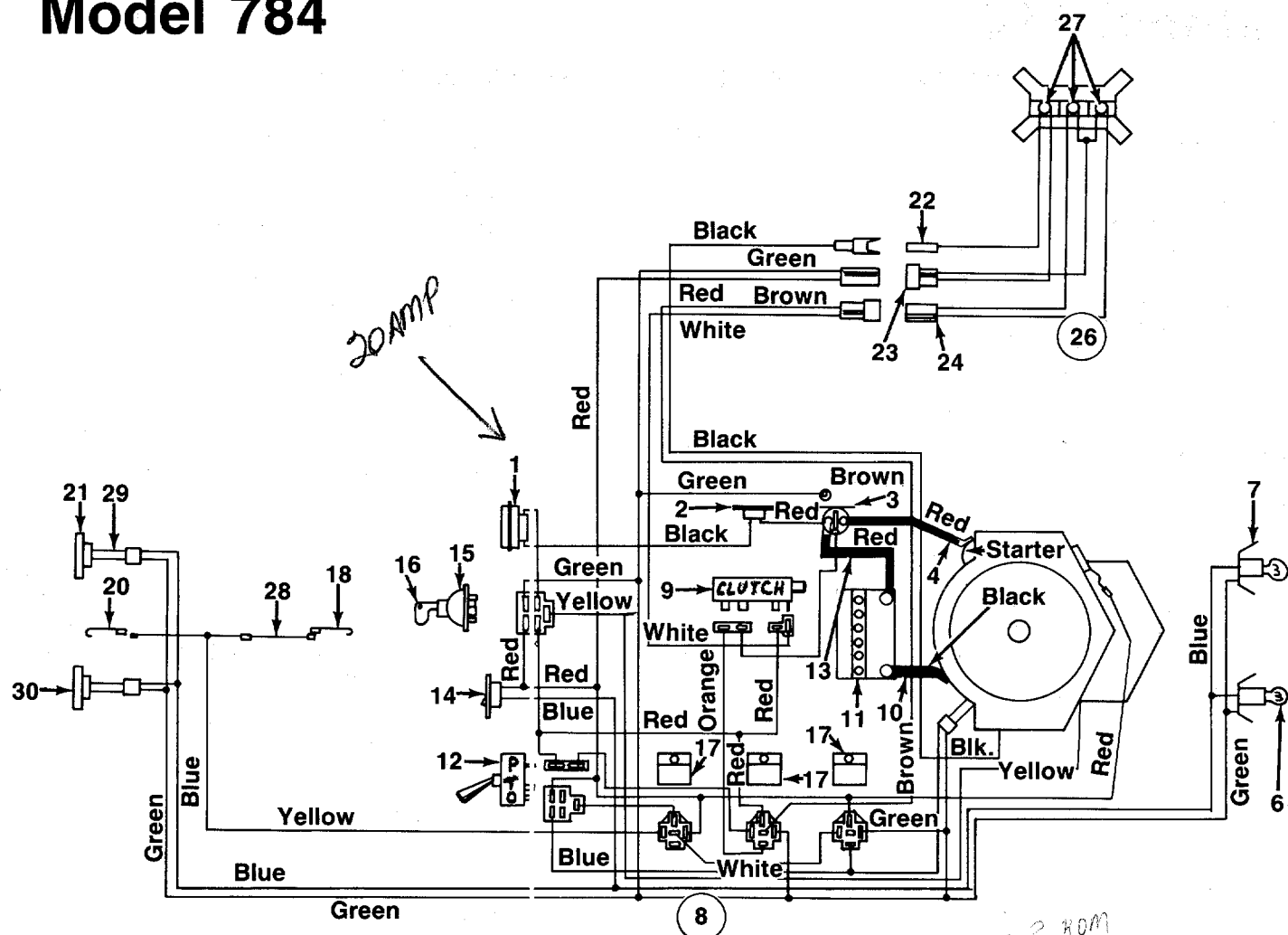
SUN STRAN → JEAN LONG
SERV.

2 YR. WARR.
DO NOT REPAIR UNDER WARR.
REPLACE COMP.

(MIKE BETZ) SUN-STRAND

MIKE GIBSON - 515-239-634

Model 784



PARTS LIST FOR ELECTRICAL SYSTEM

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	725-0925		Ammeter	16	725-1341B	N	Ignition Key
2	725-1382		Circuit Breaker	17	725-1375		Relay
3	725-0771		Solenoid	18	725-0759		Spring Lever
4	725-0561		Wire	20	725-1303	N	Safety Switch (Seat)
6	725-0963		Bulb	21	725-3018	N	Taillight <i>LENS Assy.</i>
7	725-1058		Socket	22	729-0139		Connector
8	725-1391	N	Wire Harness	23	729-0166		Connector
9	725-0819		Safety Switch (Clutch)	24	729-0132		Connector
10	725-0996		6 Ga. Black Wire	26	725-1364		Wire Harness
11	725-0453A	N	Battery 12V	27	725-1365		Bulb
12	725-0893	N	Switch (PTO)	28	725-1399	N	Transmission Ext. Wire
13	725-0563		Wire	29	725-1380	N	Taillight Harness
14	725-0634		Light Switch	30	725-3020	N	Bulb
15	725-0267		Ignition Switch				

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service are available through the authorized service firms listed below. All orders should specify the model number of your unit, part numbers, description of parts and the quantity of each part required.

BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing **Engines—Gasoline**, Briggs & Stratton or Tecumseh Lauson.

NOTE: If any parts are found to be missing or defective upon assembly of this unit, write to advise the factory so that immediate replacement can be made.

ALABAMA	BIRMINGHAM
Auto Electric & Carburetor Co.	2625 4th Ave. S. 35233
ARKANSAS	NORTH LITTLE ROCK
Sutton's Lawn Mower Shop.	5301 Roundtop Drive Box 368, Rt. 4 72117
CALIFORNIA	PORTERVILLE
Billious	75 North D Street 93257
COLORADO	DENVER
Spitzer Industrial Products Co.	6601 N. Washington St. 80229
FLORIDA	JACKSONVILLE
Radco Distributors	4909 Victor St. Box 5459 32207
	HIALEAH
Small Eng. Dist.	7995 W. 26th Court ... 33016
GEORGIA	EAST POINT
East Point Cycle & Key Inc.	2834 Church St. 30344
ILLINOIS	LYONS
Keen Edge Co.	8615 Ogden Ave. 60534
INDIANA	ELKHART
Parts & Sales Inc.	2101 Industrial Pkwy. 46516
IOWA	DUBUQUE
Power Lawn & Garden Equip.	2551 J.F. Kennedy 52001
LOUISIANA	NEW ORLEANS
Suhren Engine Co.	8330 Earhart Blvd. 70118
MARYLAND	TAKOMA PARK
Center Supply Co.	6867 New Hampshire Ave. 20912
MASSACHUSETTS	SPRINGFIELD
Morton B. Collins Co.	300 Birnie Ave. 01107
MICHIGAN	MOUNT CLEMENS
Power Equipment Dist.	340 Hubbard 48043
MINNESOTA	PLYMOUTH
Hance Distributing Inc.	12795 16th Ave. North ... 55441
MISSOURI	EARTH CITY
Oscar Wilson Engine & Parts ...	4159 Shoreline Dr. 63045
	KANSAS CITY
Automotive Equip. Service	3117 Holmes St. 64109
NEW JERSEY	ALLOWAY
Piersons	Canal St., Box 494 08001
NEW MEXICO	ALBUQUERQUE
Spitzer Eng. & Parts Co.	1023 Third Ave. N.W. ... 87103

NEW YORK	CARTHAGE
Gamble Dist., Inc.	West End Ave. 13619
NORTH CAROLINA	GREENSBORO
Dixie Sales Company	335 N. Green 27402
OHIO	CARROLL
Stebe's Mid-State Mower Supply	Box 366, 71 High St. ... 43112
	CLEVELAND
Bleckrie, Inc.	7900 Lorain Ave. 44102
National Central	WADSWORTH
	687 Seville Rd. 44281
Burton Supply Co.	YOUNGSTOWN
	1301 Logan Ave. Box 929 44501
PENNSYLVANIA	HARRISBURG
EEOC Inc.	4021 N. 6th St. 17110
Thompson Rubber Co.	WILLOW GROVE
	850 Davisville Rd. 19090
Bluemont Co.	PITTSBURGH
	11101 Frankstown Rd. ... 15235
Frank Roberts & Sons	PUNXSUTAWNEY
	R.D. 2 15767
	SCRANTON
Scranton Auto Ignition Co.	1133-35 Wyoming Ave. ... 18509
TENNESSEE	KNOXVILLE
Ace Distributors	2103 Magnolia 379
	MEMPHIS
American Sales & Service, Inc. ...	3035-43 Bellbrook 38116
TEXAS	DALLAS
Marr Brothers, Inc.	423 E. Jefferson 75203
	SAN ANTONIO
Engine House Inc.	8610 Botts Lane P.O. Box 17867 78217
UTAH	SALT LAKE CITY
Powered Products	1661 N. Beck St. 84116
VIRGINIA	ASHLAND
RBI Corp.	101 Cedar Ridge Dr. ... 23005
WASHINGTON	SEATTLE
Equip. Northwest	1410 14th Ave. 98122
WISCONSIN	MILWAUKEE
Wisconsin Magneto Inc.	4727 N. Teutonia St. ... 53209

WARRANTY PARTS AND SERVICE POLICY

(0687)

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility or conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES:

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number, Serial Number and/or Data Code of unit involved.
2. Date unit was purchased or first put into service.
3. Date of Failure.
4. Nature of Failure.